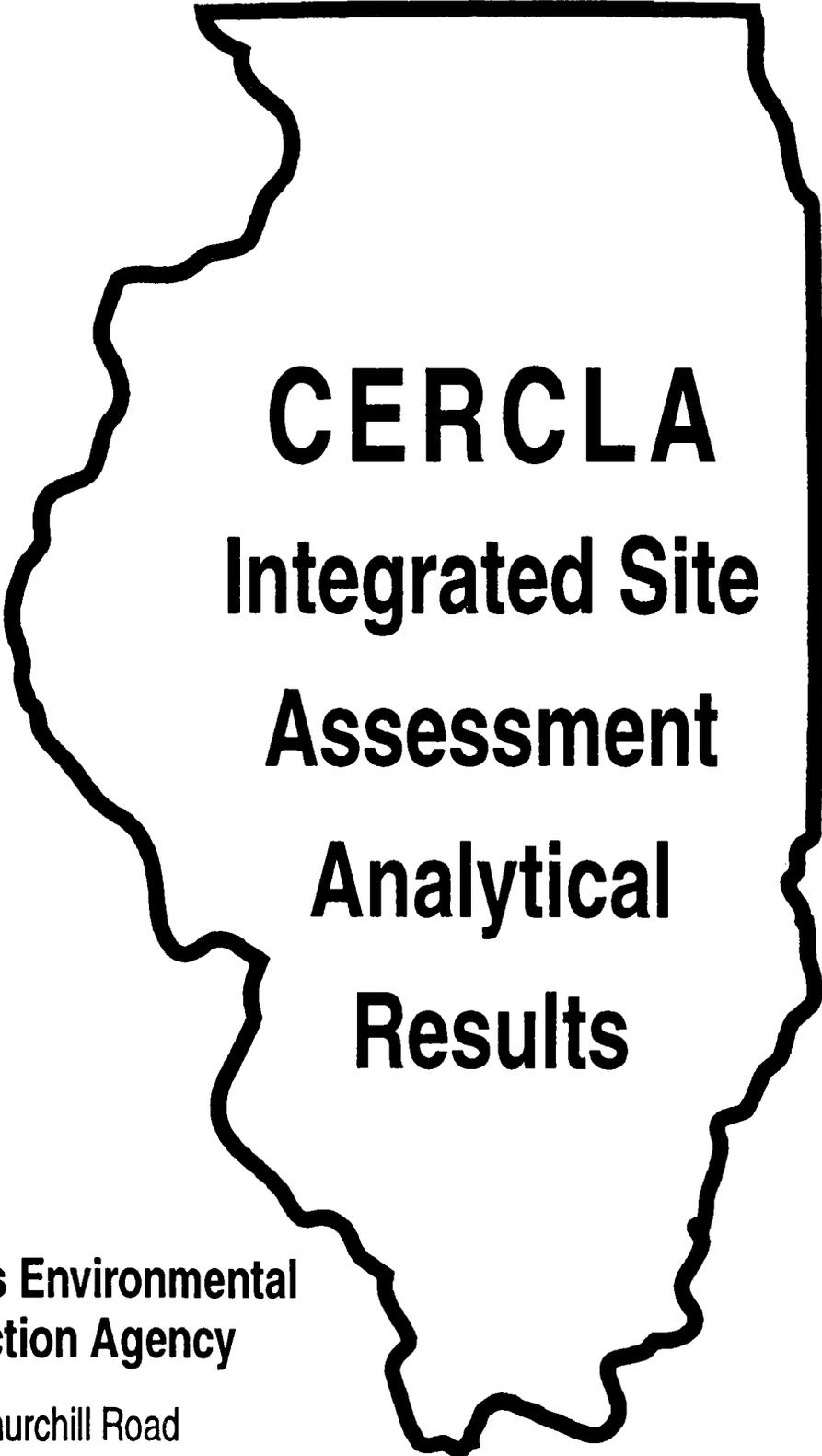


Marvel Engineering
ILD 984837104
L0311860037/Cook Co.
SF/HRS



**CERCLA
Integrated Site
Assessment
Analytical
Results**



**Illinois Environmental
Protection Agency**

2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

EPA Region 5 Records Ctr.



335492

Region 5 Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 09-28-97

SUBJECT: Review of Region V CLP Data
Received for Review on

Sept 18, 1997

FROM: Stephen L. Ostrodka, Chief (HSRL-5J)
Superfund Technical Support Section

L.F.

TO: Data User:

IEPA

We have reviewed the data for the following case:

SITE NAME:

Marvel Engineering (IL)

CASE NUMBER:

25625

SDG NUMBER:

MEAYF1

Number and Type of Samples:

13 (soil)

Sample Numbers:

MEAYF1-7, 9 MEAYG0-1, 3-5

Laboratory:

Sentinel

Hrs. for Review:

9 hrs

+ 1/2

Following are our findings:

The Mg result on sample MEAYG5 is unusable (R) due to exceeding ^{holding time} criteria of 28 days.

All other data are usable with the qualifications described in the attached narrative.

cc: Regional TPO
Cecilia Lockett
SM-5J

L. Finkelberg

09-28-97

RECEIVED

OCT 14 1997

IEPA/BOL

Case Number : 25625
Site Name: Marvel Engineering (IL)

Page 2 of 5
SDG Number: MEAYF1
Laboratory: Sentinel

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Thirteen soil samples, numbered MEAYF1-7, MEAYF9, MEAYG0-1, MEAYG3-5, were collected on 08/12-13/97. The lab received the samples on 08/15/97 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using CLP SOW ILM04.0 analysis procedure.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric procedure.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: September 24, 1997

1. HOLDING TIME:

DC-274: The holding time criteria exceeded 28 days criteria for mercury. Results greater than the IDL are estimated "J", the mercury results below the IDL are unusable "R".

MEAYG5

DC-280: The following inorganic soil samples were reviewed for holding time violations using criteria developed for water samples.

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

2. CALIBRATIONS:

No problems were found for this qualification.

3. BLANKS:

The following inorganic samples are associated with a negative blank concentration whose absolute value is greater than the instrument detection limit (IDL). The sample concentration is greater than the IDL and less than five times the blank concentration. Hits are qualified "J". Some non-detect concentration readings are sufficiently high that the negative blank reading may have caused the IDL to be elevated. These non-detects are flagged "UJ".

Mercury
MEAYF6

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration. Hits are qualified "J"; non-detects are acceptable.

Selenium
MEAYG3

Silver
MEAYF3, MEAYG4, MEAYG5

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

DC-267: The following inorganic samples are associated with a matrix spike recovery which is high (>125%). Hits are biased high and are qualified "J". Non-detects are acceptable.

Cyanide

MEAYF1, MEAYF3, MEAYF4, MEAYF5, MEAYF6, MEAYF7
MEAYG0, MEAYG1, MEAYG3, MEAYG4, MEAYG5

DC-268: The following inorganic samples are associated with a matrix spike recovery which is low (30-74 %) indicating that sample results may be biased low. Hits are qualified "J" and non-detects are qualified "UJ".

Antimony

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

Arsenic

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

5. LABORATORY AND FIELD DUPLICATE

DC-256: The following inorganic samples are associated with duplicate results which did not meet relative percent difference (RPD) criteria. Hits are qualified "J" and non-detects are qualified "UJ".

Calcium

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

6. ICP ANALYSIS

DC-295: The following inorganic samples are associated with an ICP serial dilution percent difference which is not in control. The serial dilution result is greater than the sample result, indicating a potential negative interference. The data must be qualified using professional judgement. All associated data are estimated "J".

Cadmium

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

Calcium

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

Copper

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4

Case Number : 25625
Site Name: Marvel Engineering (IL)

Page 5 of 5
SDG Number: MEAYF1
Laboratory: Sentinel

MEAYG5

Magnesium

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

Potassium

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

Zinc

MEAYF1, MEAYF2, MEAYF3, MEAYF4, MEAYF5, MEAYF6
MEAYF7, MEAYF9, MEAYG0, MEAYG1, MEAYG3, MEAYG4
MEAYG5

7. GFAA ANALYSIS

NA

8. SAMPLE RESULTS

All data, except those qualified above, are acceptable.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: September 24, 1997

CADRE Data Qualifier Sheet

Qualifiers

Data Qualifier Definitions

- | | |
|----|---|
| U | The analyte was analyzed for, but was not detected above the reported sample quantitation limit. |
| J | The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample. |
| UJ | The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample. |
| R | The data are unusable. (The compound may or may not be present) |

FILE NAME: MEAYF1 DATE: 09/24/97 TIME: 08:56

CRITERIA FILE: FGDR194

DATA

Original Qualified

QUALIFICATIONS PERFORMED

	Quantitation Limit		CRDL Standards
	Percent Moisture	X	ICS
X	Holding Time	X	LCS
X	Calibrations	X	Duplicates
X	Matrix Spikes		Furnace AA QC
	IPC	X	ICP Serial Dilutions
	Internal Standards	X	Sample Results Verification
	SMC/Surrogates	X	Laboratory Blanks
	System Performance		Field QC
	Sample Cleanup		

PRINT NON-DETECTS

X| Yes | | No

PRINT REJECTED RESULTS

X| Yes | | No

TAL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: MEAYF1

Site: Marvel Engineering (IL)
Laboratory: SENTINEL, INC.

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	MEAYF1 X104 Routine Sample Soil/Low 74.8	MEAYF2 X105 Routine Sample Soil/Low 83.1	MEAYF3 X106 Routine Sample Soil/Low 84.8	MEAYF4 X107 Routine Sample Soil/Low 79.4	MEAYF5 X108 Routine Sample Soil/Low 73.3
INORG					
Aluminum	14400	13800	11300	16700	15900
Antimony	1.2 UJ	1.1 UJ	1.1 UJ	1.2 UJ	1.2 UJ
Arsenic	1.4 J	6.4 J	9.8 J	5.5 J	5.2 J
Barium	110	89.6	76	106	91.2
Beryllium	0.80	0.70	0.60	0.80	0.80
Cadmium	5.5 J	0.50 J	0.60 J	3.2 J	3720 J
Calcium	10100 J	4520 J	22300 J	10000 J	10400 J
Chromium	19.5	18	15.1	23.5	377
Cobalt	11.3	12.2	12.7	10.1	8.2
Copper	70.9 J	27.2 J	36.3 J	39.7 J	1440 J
Iron	25200	23500	24000	25500	25600
Lead	970	21.3	31.6	29.3	29.6
Magnesium	8080 J	4110 J	14300 J	7850 J	8520 J
Manganese	385	544	596	301	237
Mercury	0.060 U	0.050 U	0.050 U	0.060 U	0.070 U
Nickel	27.6	25.8	27.8	26.1	37.1
Potassium	1470 J	1280 J	1320 J	2050 J	1700 J
Selenium	0.60 U	0.50 U	0.50 U	0.60 U	0.60 U
Silver	7.2	1.1	0.90 J	1	1.2
Sodium	206	170	169	146	637
Thallium	0.80 U				
Vanadium	26.2	28.5	23.3	28.7	30.3
Zinc	98.8 J	58.7 J	69.7 J	99.7 J	182 J
Cyanide	0.20 J	0.10 U	0.20 J	0.30 J	1.3 J

Water units are reported in ug/L.
Soil units are reported in mg/Kg.

TAL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: MEAYF1

Site: Marvel Engineering (IL)
Laboratory: SENTINEL, INC.

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	MEAYF6 X109 Routine Sample Soil/Low 77.9	MEAYF7 X110 Routine Sample Soil/Low 79.5	MEAYF9 X112 Routine Sample Soil/Low 79.7	MEAYG0 X113 Routine Sample Soil/Low 72.2	MEAYG1 X114 Routine Sample Soil/Low 85.5
INORG					
Aluminum	4070	6540	8710	11200	10300
Antimony	1.7 J	1.6 J	1.2 UJ	1.3 UJ	1.1 UJ
Arsenic	2 J	4.7 J	7.3 J	2 J	3.2 J
Barium	85.3	106	38	80.7	86.1
Beryllium	0.40	0.70	0.50	0.60	0.80
Cadmium	21.7 J	20.5 J	1.3 J	2.5 J	3 J
Calcium	66800 J	44200 J	48600 J	23800 J	16400 J
Chromium	30.3	21.1	50.8	40.8	17.7
Cobalt	5.3	6.7	13.2	11.3	9.5
Copper	392 J	382 J	45.5 J	81 J	131 J
Iron	29700	24000	19200	19900	22000
Lead	670	620	162	118	90.2
Magnesium	43600 J	26200 J	25900 J	15300 J	9610 J
Manganese	310	1140	386	499	434
Mercury	0.30 J	0.30	0.060 U	0.070 U	0.060 U
Nickel	22.9	26.6	29.4	25.2	26.5
Potassium	890 J	1090 J	1820 J	1350 J	1510 J
Selenium	0.60 U				
Silver	11.9	6.9	3.1	1.4	1.5
Sodium	307	397	384	373	273
Thallium	0.80 U	0.80 U	0.80 U	0.90 U	0.80 U
Vanadium	16.7	19.9	18.6	21.8	24.5
Zinc	1760 J	1660 J	87.1 J	245 J	324 J
Cyanide	0.90 J	0.80 J	0.10 U	0.20 J	0.20 J

FILE NAME: MEAYF1 DATE: 09/24/97 TIME: 08:56 CADRE 2.3.1

PAGE: 2

Water units are reported in ug/L.
Soil units are reported in mg/Kg.

TAL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: MEAYF1

Site: Marvel Engineering (IL)
Laboratory: SENTINEL, INC.

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT SOLID:	MEAYG3 X101 Routine Sample Soil/Low 75.2	MEAYG4 X102 Routine Sample Soil/Low 86.9	MEAYG5 X103 Routine Sample Soil/Low 83.3		
INORG					
Aluminum	14500	12900	8980		
Antimony	1.2 UJ	1 UJ	1.8 J		
Arsenic	6.9 J	2.2 J	6.9 J		
Barium	109	85.6	74.7		
Beryllium	0.80	0.70	0.60		
Cadmium	0.80 J	1.3 J	3.7 J		
Calcium	7180 J	26000 J	23400 J		
Chromium	19.6	16.8	18.6		
Cobalt	10.8	9.4	8.6		
Copper	28.8 J	34.1 J	178 J		
Iron	20600	19800	22000		
Lead	55.5	22.9	164		
Magnesium	5100 J	15800 J	13600 J		
Manganese	456	303	281		
Mercury	0.070 U	0.050 U	0.060 R		
Nickel	21.8	26.1	30.9		
Potassium	2520 J	1210 J	1560 J		
Selenium	0.80 J	0.50 U	0.50 U		
Silver	1.1	0.80 J	0.90 J		
Sodium	164	165	266		
Thallium	0.80 U	0.70 U	0.80 U		
Vanadium	28.2	23.3	17.4		
Zinc	84.7 J	56.1 J	227 J		
Cyanide	0.30 J	0.10 J	0.20 J		

Water units are reported in ug/L.
Soil units are reported in mg/Kg.

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 25625
 DATA SET: MEAYFI
 LAB QC # MEAYG5
 DATE: 9-23-97

SITE: Marcel Engineering
 LAB: Sentinel
 REVIEWED BY: Stephane N. Tolan

MATRIX: Soil
 CONC: LOW

WATER SAMPLE SPK: NA
 WATER SAMPLE DUP: NA
 SOIL SAMPLE SPK: MEAYG5
 SOIL SAMPLE DUP: MEAYG5

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 3	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS SR	SOIL SPIKE SR	SOIL DUP RPD	ICS AQ	ICS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP SR	AQ SPIKE SR	BLANK	DUP RPD	BLANK	DUP RPD	
ALUMINUM		OK	OK	158	NA	2480	OK			NA	OK	NA		NA	NA					
ANTIMONY								(41.1)												
ARSENIC							0.510	(58.5)												
BARIUM				10																
BERYLLIUM				0.1																
CADMIUM													(12.7)							
CALCIUM				48.5		5158			(40.1)				(16.9)							
CHROMIUM																				
COBALT																				
COPPER													(17.1)							
IRON				45.4																
LEAD									(29.8)											
MAGNESIUM				48.8		6112			(30.2)				(10.6)							
MANGANESE																				
MERCURY	X			(-0.1)																
NICKEL																				
POTASSIUM				24.1									(14.0)							
SELENIUM				(2.6)																
SILVER				(0.8)																
SODIUM																				
THALLIUM				6.5																
TIN																				
VANADIUM																				
ZINC									(23.9)				(13.1)							
CYANIDE								(178.2)												

↑
 MEAYG5
 9/23/97

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

SOW No.: ILM04.0

EPA Sample No.

Lab Sample ID.

MEAYF1	07241S
MEAYF2	07242S
MEAYF3	07243S
MEAYF4	07244S
MEAYF5	07245S
MEAYF6	07246S
MEAYF7	07247S
MEAYF9	07248S
MEAYG0	07249S
MEAYG1	07250S
MEAYG3	07251S
MEAYG4	07252S
MEAYG5	07253S
MEAYG5D	07253S2
MEAYG5S	07253DS
S100	MEAYF1

RECEIVED
 18 7
 LAB
 CHICAGO, ILLINOIS 60605

MS 9/17/97

Were ICP interelement corrections applied? Yes/No YES
 Were ICP background corrections applied? Yes/No YES
 If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: *Concentrations are estimated for Cadmium, Calcium, Copper, Magnesium, Potassium and Zinc due to possible matrix interferences.*

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: *[Signature]*
 Date: 9/16/97

Name: BO Kilgore
 Title: QA Ofc

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEAYF1

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07241S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 74.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14400			P
7440-36-0	Antimony	1.2	U	N	P
7440-38-2	Arsenic	1.4	B	N	P
7440-39-3	Barium	110			P
7440-41-7	Beryllium	0.76	B		P
7440-43-9	Cadmium	5.5		E	P
7440-70-2	Calcium	10100		*E	P
7440-47-3	Chromium	19.5			P
7440-48-4	Cobalt	11.3	B		P
7440-50-8	Copper	70.9		E	P
7439-89-6	Iron	25300			P
7439-92-1	Lead	970		*	P
7439-95-4	Magnesium	8080		*E	P
7439-96-5	Manganese	385			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	27.6			P
7440-09-7	Potassium	1470		E	P
7782-49-2	Selenium	0.61	U		P
7440-22-4	Silver	7.2			P
7440-23-5	Sodium	206	B		P
7440-28-0	Thallium	0.86	U		P
7440-62-2	Vanadium	26.2			P
7440-66-6	Zinc	98.8		*E	P
	Cyanide	0.17	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEAYF2

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07242S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 83.1

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13800			P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	6.4		N	P
7440-39-3	Barium	89.6			P
7440-41-7	Beryllium	0.74	B		P
7440-43-9	Cadmium	0.52	B	E	P
7440-70-2	Calcium	4520		*E	P
7440-47-3	Chromium	18.0			P
7440-48-4	Cobalt	12.2			P
7440-50-8	Copper	27.2		E	P
7439-89-6	Iron	23500			P
7439-92-1	Lead	21.3		*	P
7439-95-4	Magnesium	4110		*E	P
7439-96-5	Manganese	544			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	25.8			P
7440-09-7	Potassium	1280		E	P
7782-49-2	Selenium	0.54	U		P
7440-22-4	Silver	1.1	B		P
7440-23-5	Sodium	170	B		P
7440-28-0	Thallium	0.77	U		P
7440-62-2	Vanadium	28.5			P
7440-66-6	Zinc	58.7		*E	P
	Cyanide	0.13	U	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEAYF3

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07243S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 84.8

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11300			P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	9.8		N	P
7440-39-3	Barium	76.0			P
7440-41-7	Beryllium	0.62	B		P
7440-43-9	Cadmium	0.64	B	E	P
7440-70-2	Calcium	22300		*E	P
7440-47-3	Chromium	15.1			P
7440-48-4	Cobalt	12.7			P
7440-50-8	Copper	36.3		E	P
7439-89-6	Iron	24000			P
7439-92-1	Lead	31.6		*	P
7439-95-4	Magnesium	14300		*E	P
7439-96-5	Manganese	596			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	27.9			P
7440-09-7	Potassium	1320		E	P
7782-49-2	Selenium	0.54	U		P
7440-22-4	Silver	0.87	B		P
7440-23-5	Sodium	169	B		P
7440-28-0	Thallium	0.77	U		P
7440-62-2	Vanadium	23.3			P
7440-66-6	Zinc	69.7		*E	P
	Cyanide	0.18	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

4

INORGANIC ANALYSIS DATA SHEET

MEAYF4

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07244S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 79.4

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16700	-		P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	5.5		N	P
7440-39-3	Barium	106			P
7440-41-7	Beryllium	0.84	B		P
7440-43-9	Cadmium	3.2		E	P
7440-70-2	Calcium	10000		*E	P
7440-47-3	Chromium	23.5			P
7440-48-4	Cobalt	10.1	B		P
7440-50-8	Copper	39.7		E	P
7439-89-6	Iron	25500			P
7439-92-1	Lead	29.3		*	P
7439-95-4	Magnesium	7850		*E	P
7439-96-5	Manganese	301			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	26.1			P
7440-09-7	Potassium	2050		E	P
7782-49-2	Selenium	0.59	U		P
7440-22-4	Silver	1.0	B		P
7440-23-5	Sodium	146	B		P
7440-28-0	Thallium	0.83	U		P
7440-62-2	Vanadium	28.7			P
7440-66-6	Zinc	99.7		*E	P
	Cyanide	0.28	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEAYF5

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07245S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 73.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15900			P
7440-36-0	Antimony	1.2	U	N	P
7440-38-2	Arsenic	5.2		N	P
7440-39-3	Barium	91.2			P
7440-41-7	Beryllium	0.80	B		P
7440-43-9	Cadmium	3720		E	P
7440-70-2	Calcium	10400		*E	P
7440-47-3	Chromium	377			P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	1440		E	P
7439-89-6	Iron	25600			P
7439-92-1	Lead	29.6		*	P
7439-95-4	Magnesium	8520		*E	P
7439-96-5	Manganese	237			P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	37.1			P
7440-09-7	Potassium	1700		E	P
7782-49-2	Selenium	0.60	U		P
7440-22-4	Silver	1.2	B		P
7440-23-5	Sodium	637	B		P
7440-28-0	Thallium	0.85	U		P
7440-62-2	Vanadium	30.3			P
7440-66-6	Zinc	182		*E	P
	Cyanide	1.3		N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

MEAYF6

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07246S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 77.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4070			P
7440-36-0	Antimony	1.7	B	N	P
7440-38-2	Arsenic	2.0	B	N	P
7440-39-3	Barium	85.3			P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	21.7		E	P
7440-70-2	Calcium	66800		*E	P
7440-47-3	Chromium	30.3			P
7440-48-4	Cobalt	5.3	B		P
7440-50-8	Copper	392		E	P
7439-89-6	Iron	29700			P
7439-92-1	Lead	670		*	P
7439-95-4	Magnesium	43600		*E	P
7439-96-5	Manganese	310			P
7439-97-6	Mercury	0.29			CV
7440-02-0	Nickel	22.9			P
7440-09-7	Potassium	890	B	E	P
7782-49-2	Selenium	0.59	U		P
7440-22-4	Silver	11.9			P
7440-23-5	Sodium	307	B		P
7440-28-0	Thallium	0.83	U		P
7440-62-2	Vanadium	16.7			P
7440-66-6	Zinc	1760		*E	P
	Cyanide	0.86		N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

MEAYF7

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07247S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 79.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6540	-		P
7440-36-0	Antimony	1.6	B	N	P
7440-38-2	Arsenic	4.7		N	P
7440-39-3	Barium	106			P
7440-41-7	Beryllium	0.74	B		P
7440-43-9	Cadmium	20.5		E	P
7440-70-2	Calcium	44200		*E	P
7440-47-3	Chromium	21.1			P
7440-48-4	Cobalt	6.7	B		P
7440-50-8	Copper	382		E	P
7439-89-6	Iron	24100			P
7439-92-1	Lead	620		*	P
7439-95-4	Magnesium	26200		*E	P
7439-96-5	Manganese	1140			P
7439-97-6	Mercury	0.35			CV
7440-02-0	Nickel	26.6			P
7440-09-7	Potassium	1090	B	E	P
7782-49-2	Selenium	0.59	U		P
7440-22-4	Silver	6.9			P
7440-23-5	Sodium	397	B		P
7440-28-0	Thallium	0.84	U		P
7440-62-2	Vanadium	19.9			P
7440-66-6	Zinc	1660		*E	P
	Cyanide	0.85		N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

MEAYF9

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07248S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 79.7

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8710	-		P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	7.3		N	P
7440-39-3	Barium	38.0	B		P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium	1.3		E	P
7440-70-2	Calcium	48600		*E	P
7440-47-3	Chromium	50.8			P
7440-48-4	Cobalt	13.2			P
7440-50-8	Copper	45.5		E	P
7439-89-6	Iron	19200			P
7439-92-1	Lead	162		*	P
7439-95-4	Magnesium	25900		*E	P
7439-96-5	Manganese	386			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	29.4			P
7440-09-7	Potassium	1820		E	P
7782-49-2	Selenium	0.58	U		P
7440-22-4	Silver	3.1			P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	0.83	U		P
7440-62-2	Vanadium	18.6			P
7440-66-6	Zinc	87.1		*E	P
	Cyanide	0.14	U	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

MEAYGO

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07249S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 72.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11300			P
7440-36-0	Antimony	1.3	U	N	P
7440-38-2	Arsenic	2.0	B	N	P
7440-39-3	Barium	80.7			P
7440-41-7	Beryllium	0.59	B		P
7440-43-9	Cadmium	2.5		E	P
7440-70-2	Calcium	23800		*E	P
7440-47-3	Chromium	40.8			P
7440-48-4	Cobalt	11.3	B		P
7440-50-8	Copper	81.0		E	P
7439-89-6	Iron	19900			P
7439-92-1	Lead	118		*	P
7439-95-4	Magnesium	15300		*E	P
7439-96-5	Manganese	499			P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	25.1			P
7440-09-7	Potassium	1350	B	E	P
7782-49-2	Selenium	0.66	U		P
7440-22-4	Silver	1.4	B		P
7440-23-5	Sodium	373	B		P
7440-28-0	Thallium	0.93	U		P
7440-62-2	Vanadium	21.8			P
7440-66-6	Zinc	245		*E	P
	Cyanide	0.18	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

MEAYG1

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07250S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 85.5

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300			P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	3.2		N	P
7440-39-3	Barium	86.1			P
7440-41-7	Beryllium	0.78	B		P
7440-43-9	Cadmium	3.0		E	P
7440-70-2	Calcium	16400		*E	P
7440-47-3	Chromium	17.7			P
7440-48-4	Cobalt	9.5	B		P
7440-50-8	Copper	131		E	P
7439-89-6	Iron	22000			P
7439-92-1	Lead	90.2		*	P
7439-95-4	Magnesium	9610		*E	P
7439-96-5	Manganese	434			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	26.5			P
7440-09-7	Potassium	1510		E	P
7782-49-2	Selenium	0.55	U		P
7440-22-4	Silver	1.5	B		P
7440-23-5	Sodium	273	B		P
7440-28-0	Thallium	0.78	U		P
7440-62-2	Vanadium	24.5			P
7440-66-6	Zinc	324		*E	P
	Cyanide	0.17	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

MEAYG3

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07251S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 75.2

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14500			P
7440-36-0	Antimony	1.1	U	N	P
7440-38-2	Arsenic	6.9		N	P
7440-39-3	Barium	109			P
7440-41-7	Beryllium	0.75	B		P
7440-43-9	Cadmium	0.82	B	E	P
7440-70-2	Calcium	7180		*E	P
7440-47-3	Chromium	19.6			P
7440-48-4	Cobalt	10.8	B		P
7440-50-8	Copper	28.8		E	P
7439-89-6	Iron	20600			P
7439-92-1	Lead	55.5		*	P
7439-95-4	Magnesium	5100		*E	P
7439-96-5	Manganese	456			P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	21.8			P
7440-09-7	Potassium	2520		E	P
7782-49-2	Selenium	0.79	B		P
7440-22-4	Silver	1.1	B		P
7440-23-5	Sodium	164	B		P
7440-28-0	Thallium	0.83	U		P
7440-62-2	Vanadium	28.2			P
7440-66-6	Zinc	84.7		*E	P
	Cyanide	0.34	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

MEAYG4

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07252S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 86.9

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12900	-		P
7440-36-0	Antimony	1.0	U	N	P
7440-38-2	Arsenic	2.2		N	P
7440-39-3	Barium	85.6			P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.3		E	P
7440-70-2	Calcium	26100		*E	P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	34.1		E	P
7439-89-6	Iron	19800			P
7439-92-1	Lead	22.9		*	P
7439-95-4	Magnesium	15800		*E	P
7439-96-5	Manganese	303			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	26.1			P
7440-09-7	Potassium	1210		E	P
7782-49-2	Selenium	0.53	U		P
7440-22-4	Silver	0.78	B		P
7440-23-5	Sodium	165	B		P
7440-28-0	Thallium	0.75	U		P
7440-62-2	Vanadium	23.3			P
7440-66-6	Zinc	56.1		*E	P
	Cyanide	0.15	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

MEAYG5

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Lab Sample ID: 07253S

Level (low/med): LOW

Date Received: 08/15/97

% Solids: 83.3

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8980	-		P
7440-36-0	Antimony	1.8	B	N	P
7440-38-2	Arsenic	6.9		N	P
7440-39-3	Barium	74.7			P
7440-41-7	Beryllium	0.62	B		P
7440-43-9	Cadmium	3.7		E	P
7440-70-2	Calcium	23500		*E	P
7440-47-3	Chromium	18.6			P
7440-48-4	Cobalt	8.6	B		P
7440-50-8	Copper	178		E	P
7439-89-6	Iron	22000			P
7439-92-1	Lead	164		*	P
7439-95-4	Magnesium	13700		*E	P
7439-96-5	Manganese	281			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	30.9			P
7440-09-7	Potassium	1560		E	P
7782-49-2	Selenium	0.54	U		P
7440-22-4	Silver	0.87	B		P
7440-23-5	Sodium	266	B		P
7440-28-0	Thallium	0.76	U		P
7440-62-2	Vanadium	17.3			P
7440-66-6	Zinc	227		*E	P
	Cyanide	0.18	B	N	CA

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: COLORLESS

Clarity After:

Artifacts:

Comments:

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U.S. EPA - CLP

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BLANKS

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum	-13.8	B	-13.0	B	-15.1	B	9.9	U	-2.680	B	P
Antimony	4.7	U	4.7	U	4.7	U	4.7	U	0.940	U	P
Arsenic	2.0	U	2.0	U	2.0	U	2.0	U	-0.510	B	P
Barium	0.4	B	0.7	B	0.7	B	1.0	B	0.080	U	P
Beryllium	0.1	B	0.1	U	-0.1	B	0.1	U	0.020	U	P
Cadmium	0.3	U	0.3	U	0.3	U	0.3	U	0.060	U	P
Calcium	29.2	B	32.0	B	33.0	B	48.5	B	5.158	B	P
Chromium	0.6	U	0.6	U	0.6	U	0.6	U	0.120	U	P
Cobalt	1.4	U	1.4	U	1.4	U	1.4	U	0.280	U	P
Copper	3.2	U	3.2	U	3.2	U	3.2	U	0.640	U	P
Iron	12.0	U	12.0	U	12.0	U	15.4	B	2.400	U	P
Lead	1.2	U	1.2	U	1.2	U	1.2	U	0.240	U	P
Magnesium	32.0	B	39.5	B	34.7	B	48.8	B	6.112	B	P
Manganese	0.4	U	0.4	U	0.4	U	0.4	U	0.080	U	P
Mercury	0.1	U	-0.1	B	-0.1	B	0.1	U	0.050	U	CV
Nickel	3.6	U	3.6	U	3.6	U	3.6	U	0.720	U	P
Potassium	-26.9	B	-29.1	B	-22.1	B	-19.8	B	3.920	U	P
Selenium	2.4	U	2.4	U	2.6	B	2.4	U	0.480	U	P
Silver	0.8	U	0.8	U	0.8	U	0.8	U	0.160	U	P
Sodium	141.2	U	141.2	U	141.2	U	141.2	U	28.240	U	P
Thallium	6.5	B	3.4	U	3.4	U	3.4	U	0.680	U	P
Vanadium	1.5	U	1.5	U	1.5	U	1.5	U	0.300	U	P
Zinc	16.8	U	16.8	U	16.8	U	16.8	U	3.360	U	P
Cyanide	2.3	U	2.3	U	2.3	U	2.3	U	0.115	U	CA

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U.S. EPA - CLP

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BLANKS

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C	C		
Aluminum			-15.8	B							P
Antimony			4.7	U							P
Arsenic			2.0	U							P
Barium			0.9	B							P
Beryllium			0.1	U							P
Cadmium			0.3	U							P
Calcium			38.9	B							P
Chromium			0.6	U							P
Cobalt			1.4	U							P
Copper			3.2	U							P
Iron			14.6	B							P
Lead			1.2	U							P
Magnesium			41.0	B							P
Manganese			0.4	U							P
Mercury	-0.1	B	-0.1	B	-0.1	B					CV
Nickel			3.6	U							P
Potassium			19.6	U							P
Selenium			2.4	U							P
Silver			0.8	B							P
Sodium			141.2	U							P
Thallium			3.4	U							P
Vanadium			1.5	U							P
Zinc			16.8	U							P
Cyanide											NR

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BLANKS

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or mg/kg):

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum											NR
Antimony											NR
Arsenic	2.0	U	2.0	U	2.0	U					P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Chloride											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

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5A

EPA SAMPLE NO.

SPIKE SAMPLE RECOVERY

MEAYG5S

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 83.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony	75-125	50.1499	1.8342	117.69	41.1	N	P
Arsenic	75-125	12.3704	6.8641	9.42	58.5	N	P
Barium	75-125	535.7253	74.6934	470.78	97.9		P
Beryllium	75-125	11.4177	0.6191	11.77	91.7		P
Cadmium	75-125	14.6602	3.6622	11.77	93.4		P
Calcium							NR
Chromium	75-125	63.4990	18.5556	47.08	95.5		P
Cobalt	75-125	117.6188	8.6392	117.69	92.6	B	P
Copper	75-125	232.1583	178.0128	58.85	92.0		P
Iron							NR
Lead		170.7987	164.0617	4.71	143.0		P
Magnesium							NR
Manganese	75-125	402.1289	281.3724	117.69	102.6		P
Mercury	75-125	0.6248	0.0572	0.57	109.6	U	CV
Nickel	75-125	139.1286	30.9212	117.69	91.9		P
Potassium							NR
Selenium	75-125	1.8236	0.5385	2.35	77.6	U	P
Silver	75-125	11.9820	0.8670	11.77	94.4	B	P
Sodium							NR
Thallium	75-125	10.4190	0.7629	11.77	88.5	U	P
Vanadium	75-125	127.7024	17.3462	117.69	93.8		P
Zinc	75-125	322.0578	227.3193	117.69	80.5		P
Cyanide	75-125	10.8673	0.1760	6.00	178.2	B	N CA

Comments:

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U.S. EPA - CLP

5B

EPA SAMPLE NO.

POST DIGEST SPIKE SAMPLE RECOVERY

MEAYG5A

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR) C	Sample Result (SR) C	Spike Added (SA)	%R	Q	M
Aluminum							NR
Antimony		113.66	8.17 B	120.0	87.9		P
Arsenic		87.89	30.59	61.2	93.6		P
Barium							NR
Beryllium							NR
Cadmium							NR
Calcium							NR
Chromium							NR
Cobalt							NR
Copper							NR
Iron							NR
Lead							NR
Magnesium							NR
Manganese							NR
Mercury							NR
Nickel							NR
Potassium							NR
Selenium							NR
Silver							NR
Sodium							NR
Thallium							NR
Vanadium							NR
Zinc							NR
Cyanide							NR

Comments:

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EPA SAMPLE NO.

DUPLICATES

MEAYG5D

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 83.3

% Solids for Duplicate: 83.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		8980.4894		9929.9240		10.0		P
Antimony		1.8342	B	1.1063	U	200.0		P
Arsenic	2.2	6.8641		6.9894		1.8		P
Barium	44.9	74.6934		101.6656		30.6		P
Beryllium		0.6191	B	0.6963	B	11.7		P
Cadmium	1.1	3.6622		3.7356		2.0		P
Calcium		23458.9261		15624.2789		40.1	*	P
Chromium		18.5556		19.1060		2.9		P
Cobalt		8.6392	B	9.0502	B	4.6		P
Copper		178.0128		182.1533		2.3		P
Iron		21966.8461		22102.7639		0.6		P
Lead		164.0617		221.4808		29.8	*	P
Magnesium		13655.3765		10077.1904		30.2	*	P
Manganese		281.3724		242.7731		14.7		P
Mercury		0.0572	U	0.0577	B	200.0		CV
Nickel	9.0	30.9212		33.3726		7.6		P
Potassium	1121.9	1559.7307		1593.0443		2.1		P
Selenium		0.5385	U	0.5649	U			P
Silver		0.8670	B	0.9926	B	13.5		P
Sodium		265.7969	B	205.4278	B	25.6		P
Thallium		0.7629	U	0.8003	U			P
Vanadium	11.2	17.3462		19.6340		12.4		P
Zinc		227.3193		288.8828		23.9	*	P
Cyanide		0.1760	B	0.1367	U	200.0		CA

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ICP SERIAL DILUTIONS

MEAYG5L

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	40022.00	-	38457.75	-	3.9	-	P
Antimony	8.17	B	23.50	U	100.0		P
Arsenic	30.59		37.96	B	24.1		P
Barium	332.88		355.06	B	6.7		P
Beryllium	2.76	B	3.04	B	10.1		P
Cadmium	16.32		18.40	B	12.7	E	P
Calcium	104545.88		122200.63		16.9	E	P
Chromium	82.69		90.84		9.9		P
Cobalt	38.50	B	42.02	B	9.1		P
Copper	793.32		929.04		17.1	E	P
Iron	97896.35		103980.66		6.2		P
Lead	731.15		804.14		10.0		P
Magnesium	60855.87		67294.52		10.6	E	P
Manganese	1253.95		1368.24		9.1		P
Mercury							NR
Nickel	137.80		155.11	B	12.6		P
Potassium	6951.02		7926.51	B	14.0	E	P
Selenium	2.40	U	12.00	U			P
Silver	3.86	B	7.44	B	92.7		P
Sodium	1184.54	B	1666.37	B	40.7		P
Thallium	3.40	U	17.00	U			P
Vanadium	77.30		84.74	B	9.6		P
Zinc	1013.06		1145.44		13.1	E	P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

ICP ID Number:

P3

Date:

07/11/97

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	9.9	P
Antimony	206.80		60	4.7	P
Arsenic	189.00		10	2.0	P
Barium	493.40		200	0.4	P
Beryllium	313.00		5	0.1	P
Cadmium	226.50		5	0.3	P
Calcium	317.90		5000	8.4	P
Chromium	267.70		10	0.6	P
Cobalt	228.60		50	1.4	P
Copper	324.70		25	3.2	P
Iron	271.40		100	12.0	P
Lead	220.30		3	1.2	P
Magnesium	279.00		5000	10.0	P
Manganese	257.60		15	0.4	P
Mercury			0.2		NR
Nickel	231.60		40	3.6	P
Potassium	766.40		5000	19.6	P
Selenium	196.00		5	2.4	P
Silver	328.00		10	0.8	P
Sodium	330.20		5000	141.2	P
Thallium	190.80		10	3.4	P
Vanadium	292.40		50	1.5	P
Zinc	206.20		20	16.8	P
Cyanide			10		NR

Comments:

P3: THERMO JARRELL ASH

DUPLICATES

MEAYG5D

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Level (low/med): LOW

% Solids for Sample: 83.3

% Solids for Duplicate: 83.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S) C	Duplicate (D) C	RPD	Q	M
Aluminum		8980.4894	9929.9240	10.0		P
Antimony		1.8342 B	1.1063 U	200.0		P
Arsenic	2.2	6.8641	6.9894	1.8		P
Barium	44.9	74.6934	101.6656	30.6		P
Beryllium		0.6191 B	0.6963 B	11.7		P
Cadmium	1.1	3.6622	3.7356	2.0		P
Calcium		23458.9261	15624.2789	40.1	*	P
Chromium		18.5556	19.1060	2.9		P
Cobalt		8.6392 B	9.0502 B	4.6		P
Copper		178.0128	182.1533	2.3		P
Iron		21966.8461	22102.7639	0.6		P
Lead		164.0617	221.4808	29.8	*	P
Magnesium		13655.3765	10077.1904	30.2	*	P
Manganese		281.3724	242.7731	14.7		P
Mercury		0.0572 U	0.0577 B	200.0		CV
Nickel	9.0	30.9212	33.3726	7.6		P
Potassium	1121.9	1559.7307	1593.0443	2.1		P
Selenium		0.5385 U	0.5649 U			P
Silver		0.8670 B	0.9926 B	13.5		P
Sodium		265.7969 B	205.4278 B	25.6		P
Thallium		0.7629 U	0.8003 U			P
Vanadium	11.2	17.3462	19.6340	12.4		P
Zinc		227.3193	288.8828	23.9	*	P
Cyanide		0.1760 B	0.1367 U	200.0		CA

ICP SERIAL DILUTIONS

MEAYG5L

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Matrix (soil/water): SOIL

Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample		Serial Dilution		% Difference	Q	M
	Result (I)	C	Result (S)	C			
Aluminum	40022.00		38457.75		3.9		P
Antimony	8.17	B	23.50	U	100.0		P
Arsenic	30.59		37.96	B	24.1		P
Barium	332.88		355.06	B	6.7		P
Beryllium	2.76	B	3.04	B	10.1		P
Cadmium	16.32		18.40	B	12.7	E	P
Calcium	104545.88		122200.63		16.9	E	P
Chromium	82.69		90.84		9.9		P
Cobalt	38.50	B	42.02	B	9.1		P
Copper	793.32		929.04		17.1	E	P
Iron	97896.35		103980.66		6.2		P
Lead	731.15		804.14		10.0		P
Magnesium	60855.87		67294.52		10.6	E	P
Manganese	1253.95		1368.24		9.1		P
Mercury							NR
Nickel	137.80		155.11	B	12.6		P
Potassium	6951.02		7926.51	B	14.0	E	P
Selenium	2.40	U	12.00	U			P
Silver	3.86	B	7.44	B	92.7		P
Sodium	1184.54	B	1666.37	B	40.7		P
Thallium	3.40	U	17.00	U			P
Vanadium	77.30		84.74	B	9.6		P
Zinc	1013.06		1145.44		13.1	E	P

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

ICP ID Number:

P3

Date: 07/11/97

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	9.9	P
Antimony	206.80		60	4.7	P
Arsenic	189.00		10	2.0	P
Barium	493.40		200	0.4	P
Beryllium	313.00		5	0.1	P
Cadmium	226.50		5	0.3	P
Calcium	317.90		5000	8.4	P
Chromium	267.70		10	0.6	P
Cobalt	228.60		50	1.4	P
Copper	324.70		25	3.2	P
Iron	271.40		100	12.0	P
Lead	220.30		3	1.2	P
Magnesium	279.00		5000	10.0	P
Manganese	257.60		15	0.4	P
Mercury			0.2		NR
Nickel	231.60		40	3.6	P
Potassium	766.40		5000	19.6	P
Selenium	196.00		5	2.4	P
Silver	328.00		10	0.8	P
Sodium	330.20		5000	141.2	P
Thallium	190.80		10	3.4	P
Vanadium	292.40		50	1.5	P
Zinc	206.20		20	16.8	P
Cyanide			10		NR

Comments:

P3: THERMO JARRELL ASH

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

ICP ID Number:

Date: 07/11/97

Flame AA ID Number: C2

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR
Cyanide			10		NR

Comments:

C2: BACHARACH

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

ICP ID Number:

Date: 07/10/97

Flame AA ID Number: C1

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR
Cyanide	578.00		10	2.3	CA

Comments:

C1: LACHAT

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PREPARATION LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	09/11/97	1.01	200
MEAYF1	09/11/97	1.06	200
MEAYF2	09/11/97	1.06	200
MEAYF3	09/11/97	1.04	200
MEAYF4	09/11/97	1.03	200
MEAYF5	09/11/97	1.09	200
MEAYF6	09/11/97	1.05	200
MEAYF7	09/11/97	1.02	200
MEAYF9	09/11/97	1.03	200
MEAYG0	09/11/97	1.01	200
MEAYG1	09/11/97	1.02	200
MEAYG3	09/11/97	1.09	200
MEAYG4	09/11/97	1.05	200
MEAYG5	09/11/97	1.07	200
MEAYG5D	09/11/97	1.02	200
MEAYG5S	09/11/97	1.02	200
PBS	09/11/97	1.00	200

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PREPARATION LOG

Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	09/06/97	0.20	100
MEAYF1	09/06/97	0.21	100
MEAYF2	09/06/97	0.22	100
MEAYF3	09/06/97	0.22	100
MEAYF4	09/06/97	0.21	100
MEAYF5	09/06/97	0.20	100
MEAYF6	09/06/97	0.21	100
MEAYF7	09/06/97	0.21	100
MEAYF9	09/06/97	0.20	100
MEAYG0	09/06/97	0.20	100
MEAYG1	09/06/97	0.20	100
MEAYG3	09/06/97	0.20	100
MEAYG4	09/06/97	0.21	100
MEAYG5	09/06/97	0.21	100
MEAYG5D	09/06/97	0.21	100
MEAYG5S	09/06/97	0.21	100
PBS	09/06/97	0.20	100

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 PREPARATION LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Method: CA

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	08/21/97	1.00	50
MEAYF1	08/21/97	1.02	50
MEAYF2	08/21/97	1.03	50
MEAYF3	08/21/97	1.02	50
MEAYF4	08/21/97	1.02	50
MEAYF5	08/21/97	1.03	50
MEAYF6	08/21/97	1.04	50
MEAYF7	08/21/97	1.02	50
MEAYF9	08/21/97	1.04	50
MEAYG0	08/21/97	1.07	50
MEAYG1	08/21/97	1.05	50
MEAYG3	08/21/97	1.05	50
MEAYG4	08/21/97	1.03	50
MEAYG5	08/21/97	1.02	50
MEAYG5D	08/21/97	1.01	50
MEAYG5S	08/21/97	1.00	50
PBS	08/21/97	1.00	50
S100	08/21/97	1.00	50

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ANALYSIS RUN LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: P3

Method: P

Start date: 09/14/97

End date: 09/15/97

EPA Sample No.	D/F	Time	% R	Analytes																							
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S E	A G	N A	T L	V N	Z N	C N
S0	1.00	2036		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
S	1.00	2042		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICV	1.00	2048		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICB	1.00	2054		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI	1.00	2100			X	X		X	X		X	X	X		X		X		X	X		X	X	X	X	X	X
ICSA	1.00	2106		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB	1.00	2111		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV	1.00	2117		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB	1.00	2123		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
PBS	1.00	2129		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSS	1.00	2135		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAY5L	5.00	2141		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYG5	1.00	2147		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYG5D	1.00	2153		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYG5S	1.00	2159			X	X	X	X	X		X	X	X		X		X		X	X		X	X	X	X	X	X
MEAYG5A	1.00	2205			X																						
MEAYF1	1.00	2210		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF2	1.00	2216		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV	1.00	2222		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB	1.00	2228		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF3	1.00	2234		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF4	1.00	2240		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF5	1.00	2246		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF6	1.00	2252		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF7	1.00	2258		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYF9	1.00	2304		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI	1.00	2310			X	X		X	X		X	X	X		X		X		X	X		X	X	X	X	X	X
ICSA	1.00	2315		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB	1.00	2321		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV	1.00	2327		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB	1.00	2333		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYG0	1.00	2339		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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14
ANALYSIS RUN LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: P3

Method: P

Start date: 09/14/97

End date: 09/15/97

EPA Sample No.	D/F	Time	% R	Analytes																										
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K E	S G	A G	N A	T L	V L	Z N	C N			
MEAYG1	1.00	2345		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYG3	1.00	2351		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MEAYG4	1.00	2357		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CRI	1.00	0003			X	X		X	X		X	X	X		X		X		X		X		X		X		X		X	
ICSA	1.00	0009		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ICSAB	1.00	0015		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCV	1.00	0021		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CCB	1.00	0026		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

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14
ANALYSIS RUN LOG

Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: P3

Method: P

Start date: 09/16/97

End date: 09/16/97

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
S0	1.00	1547		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
S	1.00	1553		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICV	1.00	1558		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICB	1.00	1604		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CRI	1.00	1610		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICSA	1.00	1616		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICSAB	1.00	1622		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCV	1.00	1628		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCB	1.00	1634		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MEAYG5A	1.00	1640		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ZZZZZZ	1.00	1646		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
I	1.00	1651		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICSA	1.00	1657		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICSAB	1.00	1703		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCV	1.00	1709		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCB	1.00	1715		-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
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U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: C2

Method: CV

Start date: 09/07/97

End date: 09/08/97

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
S0	1.00	1216																X											
S0.2	1.00	1218																X											
S0.5	1.00	1220																X											
S1.0	1.00	1222																X											
S2.0	1.00	1224																X											
S5.0	1.00	1226																X											
S10.0	1.00	1228																X											
ICV	1.00	1125																X											
ICB	1.00	1127																X											
CRA	1.00	1129																X											
CCV	1.00	1131																X											
CCB	1.00	1133																X											
PBS	1.00	1135																											
LCSS	10.00	1137																											
MEAYF1	1.00	1139																X											
ZZZZZZ	1.00	1141																											
ZZZZZZ	1.00	1143																											
MEAYF2	1.00	1145																X											
MEAYF3	1.00	1147																X											
MEAYF4	1.00	1149																X											
MEAYF5	1.00	1151																X											
CCV	1.00	1153																X											
CCB	1.00	1155																X											
MEAYF6	1.00	1157																X											
MEAYF7	1.00	1159																X											
MEAYF9	1.00	1201																X											
MEAYG0	1.00	1203																X											
MEAYG1	1.00	1205																X											
MEAYG3	1.00	1207																X											
MEAYG4	1.00	1209																X											
ZZZZZZ	1.00	1211																											
CCV	1.00	1213																X											

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14
ANALYSIS RUN LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: C2

Method: CV

Start date: 09/07/97

End date: 09/08/97

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
CCB	1.00	1215		-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-			
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14
ANALYSIS RUN LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: C2

Method: CV

Start date: 09/10/97

End date: 09/10/97

EPA Sample No.	D/F	Time	% R	Analytes																											
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N				
S0	1.00	2011		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
S0.2	1.00	2013		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
S0.5	1.00	2015		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
S1.0	1.00	2017		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
S2.0	1.00	2019		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
S5.0	1.00	2021		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
S10.0	1.00	2023		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICV	1.00	2030		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
ICB	1.00	2032		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
CRA	1.00	2034		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCV	1.00	2036		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCB	1.00	2038		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
PBS	1.00	2040		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
LCSS	10.00	2042		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
MEAYG5	1.00	2044		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
MEAYG5D	1.00	2046		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
MEAYG5S	1.00	2048		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCV	1.00	2050		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCB	1.00	2052		-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	

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U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SENTINEL, INC.

Contract: 68-D5-0167

Lab Code: SENTIN

Case No.: 25625

SAS No.:

SDG No.: MEAYF1

Instrument ID Number: C1

Method: CA

Start date: 08/22/97

End date: 08/22/97

EPA Sample No.	D/F	Time	% R	Analytes																									
				A L	S B	A S	B A	B E	C D	C A	C R	C O	C U	F E	P B	M G	M N	H G	N I	K	S E	A G	N A	T L	V	Z N	C N		
S0	1.00	1527		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
S10.0	1.00	1529		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
S50.0	1.00	1530		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
S100.0	1.00	1531		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
S200.0	1.00	1532		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
S100	1.00	1535		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
ICV	1.00	1536		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
ICB	1.00	1537		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCV	1.00	1538		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCB	1.00	1539		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
DDS	1.00	1540		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
SS	1.00	1541		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG5	1.00	1543		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG5D	1.00	1544		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG5S	1.00	1545		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF1	1.00	1546		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF2	1.00	1547		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF3	1.00	1548		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF4	1.00	1549		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCV	1.00	1550		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCB	1.00	1551		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF5	1.00	1552		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF6	1.00	1553		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF7	1.00	1554		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYF9	1.00	1555		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG0	1.00	1556		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG1	1.00	1558		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG3	1.00	1559		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
MEAYG4	1.00	1600		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCV	1.00	1601		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	
CCB	1.00	1602		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	

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United States Environmental Protection Agency
Contract Laboratory Program

**Inorganic Traffic Report
& Chain of Custody Record**
(For Inorganic CLP Analysis)

Case No.

25623

1. Matrix (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)	2. Preservative (Enter in Column D) 1. HCl 2. HNO3 3. NaOH 4. H2SO4 5. K2CR2O7 6. Ice only 7. Other (specify in Column D) N. Not preserved	2. Region No. <u>5</u> Sampling Co. <u>IEPA</u>	4. Date Shipped <u>8-15-97</u> Carrier <u>FED EX</u>	6. Date Received -- Received by: <u>8-15-97 Tara Thomas</u>	
		Sampler (Name) <u>MARK WAGNER</u>		Airbill Number <u>349 798 785 0</u>	Laboratory Contract Number <u>68-DS-0167</u> Unit Price <u>\$6500</u>
		Sampler Signature <u>[Signature]</u>		5. Ship To <u>SENTINEL, INC.</u> <u>2800 BOB WALLACE AVE, SUITE L 3</u> <u>HUNTSVILLE, ALA 35805</u> ATTN: MELVIN KILGORE	7. Transfer to:
3. Purpose* Lead <input type="checkbox"/> SF <input type="checkbox"/> PRP <input type="checkbox"/> ST <input type="checkbox"/> FED Early Action <input type="checkbox"/> CLEM <input type="checkbox"/> PA <input type="checkbox"/> REM <input type="checkbox"/> RI <input type="checkbox"/> SI <input checked="" type="checkbox"/> ESI Long-Term Action <input type="checkbox"/> FS <input type="checkbox"/> RD <input type="checkbox"/> RA <input type="checkbox"/> O&M <input type="checkbox"/> NPLD				Received by:	
				Contract Number	Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E - RAS Analysis							F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases		
					Diss. Metals	Total Metals	Cyanide	NO2/NO3	Fluoride	pH	Conduct.						Solids	Water-Miscible Liq.	Water-Imm. Liq.
MEAYG0	5	L	G	6								5-149067	X113	8/13/97/10:00	EBJR0	MW			
MEAYG1	5	L	G	6								5-149072	X114	8/12/97/10:30	EBJR1	MW			
MEAYG3	5	L	G	6								5-149020	X101	8/13/97/11:00	EBJR3	MW			

Shipment for Case Complete? (Y/N) <u>Y</u>	Page <u>2 of 2</u>	Sample(s) to be Used for Laboratory QC <u>MEAYG5</u>	Additional Sampler Signatures	Chain of Custody Seal Number(s) <u>97385 / 97386</u>
--	--------------------	--	-------------------------------	--

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature) <u>[Signature]</u>	Date / Time <u>8/11/97 14:40</u>	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <u>[Signature]</u>	Date / Time <u>8-15-97 10:23</u>	Remarks	Is custody seal intact? <u>(Y) N</u> none

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SEE REVERSE FOR PURPOSE CODE DEFINITIONS

365659

142

A21-012-14 REV



United States Environmental Protection Agency
Contract Laboratory Program

Inorganic Traffic Report & Chain of Custody Record (For Inorganic CLP Analysis)

Case No. 25625

1. Matrix (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)	2. Preservative (Enter in Column D) 1. HCl 2. HNO3 3. NaOH 4. H2SO4 5. K2CR2O7 6. Ice only 7. Other (specify in Column D) N. Not preserved	2. Region No. <u>5</u>	3. Sampling Co. <u>IEPA</u>	4. Date Shipped	Carrier <u>FED EX</u>	6. Date Received -- Received by: <u>8-15-97 Tara Thomas</u>			
		Sampler (Name) <u>MARK WAGNER</u>		Airbill Number <u>349 798 7850</u>		Laboratory Contract Number <u>68-DS-0167</u>	Unit Price <u>\$6500</u>		
		Sampler Signature <u>[Signature]</u>		5. Ship To <u>SENTINEL, INC</u> <u>2800 BOB WALLACE AVE, SUITE L3</u> <u>HUNTSVILLE, AL 35805</u> <u>ATTN: MELVIN KILGORE</u>		7. Transfer to:		Date Received	
		3. Purpose*		Early Action <input type="checkbox"/> CLEM <input type="checkbox"/> PA <input type="checkbox"/> REM <input type="checkbox"/> RI <input checked="" type="checkbox"/> SI <input type="checkbox"/> ESI		Long-Term Action <input type="checkbox"/> FS <input type="checkbox"/> RD <input type="checkbox"/> RA <input type="checkbox"/> O&M <input type="checkbox"/> NPLD		Received by	
Lead <input type="checkbox"/> SF <input type="checkbox"/> PRP <input type="checkbox"/> ST <input type="checkbox"/> FED				Contract Number		Price			

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc.: Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E - RAS Analysis							F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases		
					Diss. Metals	Total Metals	Cyanide	Low only		High only							Solids	Water-Miscible Liq.	Water-Imm. Liq.
								NO2/NO3	Fluoride	pH	Conduct.								
MEAYF2	5	L	G	6	XX						5-149036	X105	8/12/97/10:30	EBJQ2	MW				
MEATF3	5	L	G	6	XX						5-149040	X106	8/12/97/11:00	EBJQ3	MW				
MEAYF4	5	L	G	6	XX						5-149044	X107	8/12/97/11:30	EBJQ4	MW				
MEAYF5	5	L	G	6	XX						5-149048	X108	8/12/97/12:00	EBJQ5	MW				
MEAYF1	5	L	G	6	XX						5-149032	X104	8/12/97/12:30	EBJQ1	MW				
MEAYF4	5	L	G	6	XX						5-149024	X102	8/12/97/14:00	EBJR4	MW				
MEAYG5	5	L	G	6	XX						5-149028	X103	8/12/97/15:00	EBJR5	MW				
MEAYF6	5	L	G	6	XX						5-149052	X109	8/12/97/16:00	EBJQ6	MW				
MEAYF7	5	L	G	6	XX						5-149056	X110	8/12/97/16:00	EBJQ7	MW				
MEAYF9	5	L	G	6	XX						5-149064	X112	8/13/97/9:30	EBJQ9	MW				

Shipment for Case Complete? (Y/N) <u>Y</u>	Page <u>1</u> of <u>2</u>	Sample(s) to be Used for Laboratory QC <u>MEAYG5</u>	Additional Sampler Signatures	Chain of Custody Seal Number(s) <u>97385 / 97386</u>
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CHAIN OF CUSTODY RECORD

Relinquished by: (Signature) <u>[Signature]</u>	Date / Time <u>8-15-97 10:23</u>	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) <u>[Signature]</u>	Date / Time <u>8-15-97 10:23</u>	Remarks	Is custody seal intact? <u>(Y) None</u>

mi

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SEE REVERSE FOR PURPOSE CODE DEFINITION

365658

A21-012-14 REV

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 1K
Case No: 25625 Site Name Location: Marvel Engineering
Contractor or EPA Lab: Sentinel Data User: IEPA
No. of Samples: 13 Date Sampled or Data Received: 9-18-97

Have Chain-of-Custody records been received? Yes No
Have traffic reports or packing lists been received? Yes No
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes No
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes No
No of samples claimed: 13 No. of samples received: 13
Received by: Lynette Burnett Date: 9-18-97
Received by LSSS: Lynette Burnett Date: 9-18-97
Review started: 9-23-97 Reviewer Signature: Stephanie W. Tomlin
Total time spent on review: 4 hrs Date review completed: 9-24-97
Copied by: Lynette Burnett ^{1/2} JH Date: 10-3-97
Mailed to user by: Lynette Burnett Date: 10-3-97

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [] Suitable for Intended Purpose [] if OK
Organic Data Complete [] Suitable for Intended Purpose [] if OK
Dioxin Data Complete [] Suitable for Intended Purpose [] if OK
SAS Data Complete [] Suitable for Intended Purpose [] if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 1K
Case No: 25625 Site Name Location: Marvel Engineering
Contractor or EPA Lab: SWOK Data User: EPA
No. of Samples: 14 Date Sampled or Data Received: 10-7-97

Have Chain-of-Custody records been received? Yes No
Have traffic reports or packing lists been received? Yes No
If no, are traffic report or packing list numbers written on the chain-of-custody record? Yes No
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? Yes No
No of samples claimed: 14 No. of samples received: 14

Received by: Lynette Burnett Date: 10-7-97

Received by LSSS: Lynette Burnett Date: 10-7-97

Review started: 10-20-97 Reviewer Signature: Stephanie N. Tobin

Total time spent on review: 4 hrs Date review completed: 10-24-97

Copied by: Lynette Burnett Date: 10-30-97

Mailed to user by: Lynette Burnett Date: 10-30-97

DATA USER:

Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

- Inorganic Data Complete [] Suitable for Intended Purpose [] if OK
- Organic Data Complete [] Suitable for Intended Purpose [] if OK
- Dioxin Data Complete [] Suitable for Intended Purpose [] if OK
- SAS Data Complete [] Suitable for Intended Purpose [] if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

Missing Contents Error Report

SDG NO: **EBJQ1**
CASE NO: **25625**

LABORATORY: **SOUTHWEST LAB**
AGENCY INPUT FILE: **EBJQ1.OAS**

FIELD DESCRIPTION	CADRE KEY
Analysis Time	Record Type 20 Line 8819 Format HH:MM
Analysis Time	Record Type 20 Line 8832 Format HH:MM
Sulfur Cleanup	Record Type 27 Line 9237 Format RANGE
Sulfur Cleanup	Record Type 27 Line 9274 Format RANGE
Analysis Time	Record Type 20 Line 9512 Format HH:MM
Analysis Time	Record Type 20 Line 9525 Format HH:MM
Sulfur Cleanup	Record Type 27 Line 9930 Format RANGE
Sulfur Cleanup	Record Type 27 Line 9967 Format RANGE
Analysis Time	Record Type 20 Line 10205 Format HH:MM
Analysis Time	Record Type 20 Line 10218 Format HH:MM
Analysis Time	Record Type 20 Line 11890 Format HH:MM
Analysis Time	Record Type 20 Line 11903 Format HH:MM
Analysis Time	Record Type 20 Line 13579 Format HH:MM
Analysis Time	Record Type 20 Line 13592 Format HH:MM
Analysis Time	Record Type 20 Line 14652 Format HH:MM
Analysis Time	Record Type 20 Line 14665 Format HH:MM

Semivolatile Analysis Data - EBJQ7

Tentatively Identified Compounds

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CASE NO: 25625

SDG NO: EBJQ1

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	2.81	7700.000	J
141-79-7	3-PENTEN-2-ONE, 4-METHYL-	2.86	2600.000	NJA
	-PENTENE, -METHYL-,	3.01	7000.000	J
	ANTHRACENE, -METHYL-	11.56	1700.000	J
203-64-5	4H-CYCLOPENTA [DEF] PHENANTHRENE	11.73	3200.000	NJ
	11H-BENZO [I] FLUORENE	13.80	1600.000	J
	11H-BENZO [I] FLUORENE	14.00	4700.000	J
	11H-BENZO [I] FLUORENE	14.13	2000.000	J
	PYRENE, -METHYL-	14.21	1500.000	J
53-19-0	MITOTANE	14.89	2300.000	NJ
239-35-0	BENZO [B] NAPHTHO [2,1-D] THIOPHEN	15.23	2300.000	NJ
203-12-3	BENZO [GHI] FLUORANTHENE	15.31	2900.000	NJ
82-05-3	7H-BENZ [DE] ANTHRACEN-7-ONE	15.43	1700.000	NJ
	UNKNOWN	15.49	4900.000	J
	UNKNOWN PAH	15.94	2100.000	J
	UNKNOWN PAH	16.16	2200.000	J
	UNKNOWN	16.24	3600.000	J
	BENZ [A] ANTHRACENE, -METHYL-	16.51	2600.000	J
	CHRYSENE, -METHYL-	16.60	1500.000	J
205-82-3	BENZO [J] FLUORANTHENE	17.90	3200.000	NJ
192-97-2	BENZO [E] PYRENE	18.18	12000.000	NJ
198-55-0	PERYLENE	18.41	4400.000	NJ
	UNKNOWN	19.51	1500.000	J
	UNKNOWN PAH	19.93	1700.000	J
	-DIBENZPHENANTHRENE	20.28	1700.000	J
	DIBENZPHENANTHRENE	20.34	3100.000	J
	DIBENZO [I] CHRYSENE	20.76	1600.000	J
	UNKNOWN	21.53	1500.000	J
	-DIBENZPYRENE	22.77	3900.000	J
	NAPHTHO [I] CHRYSENE	22.96	3300.000	J
	-DIBENZPYRENE	23.07	2600.000	J

E NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

PAGE: 32

Semivolatle Analysis Data - SBLK4

Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
141-79-7	3-PENTEN-2-ONE, 4-METHYL- UNKNOWN	2.92 2.99	4000.000 410.000	NJA J
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY -HEPTADIEN--ONE, -DIMETHYL- UNKNOWN UNKNOWN UNKNOWN ORGANIC ACID UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE UNKNOWN AMIDE -OCTADIEN--OL, -DIMETHYL-, ACE	3.18 3.53 3.64 3.88 8.82 11.98 13.44 13.57 14.17 14.88 15.02 16.24 17.51 17.75	960.000 69.000 270.000 100.000 220.000 190.000 370.000 500.000 81.000 6200.000 240.000 98.000 1500.000 180.000	NJA J J J J J J J J J J J J J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

PAGE: 30

Semivolatle Analysis Data - EBJQ9RE

Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN ALCOHOL	2.99	450.000	J
	UNKNOWN ALKENE	3.07	3300.000	J
7320-53-8	DIBENZOFURAN, 4-METHYL-	9.37	480.000	NJ
132-65-0	DIBENZOTHIOPHENE	10.47	860.000	NJ
	ANTHRACENE, -METHYL-	11.64	800.000	J
	PHENANTHRENE, -METHYL-	11.69	1100.000	J
203-64-5	4H-CYCLOPENTA[DEF]PHENANTHRENE	11.87	2200.000	NJ
	PHENANTHRENE, -METHYL-	11.91	570.000	J
612-94-2	NAPHTHALENE, 2-PHENYL-	12.23	740.000	NJ
10544-50-0	SULFUR, MOL. (S8)	12.96	3100.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	13.60	820.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	13.71	780.000	NJ
	11H-BENZO[] FLUORENE	13.93	1200.000	J
	11H-BENZO[] FLUORENE	14.15	3600.000	J
	11H-BENZO[] FLUORENE	14.27	2000.000	J
	PYRENE, -METHYL-	14.34	1100.000	J
84-15-1	O-TERPHENYL	15.02	880.000	NJ
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	15.16	800.000	NJ
239-35-0	BENZO[B]NAPHTHO[2,1-D]THIOPHEN	15.36	1200.000	NJ
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	15.57	840.000	NJ
	TRIPHENYLENE, -METHYL-	16.65	1200.000	J
	UNKNOWN	16.84	830.000	J
	CHRYSENE, -METHYL-	16.91	780.000	J
	UNKNOWN	16.93	750.000	J
205-82-3	BENZO[J]FLUORANTHENE	18.03	1200.000	NJ
	BENZO[]PYRENE	18.32	3800.000	J
198-55-0	PERYLENE	18.55	1100.000	NJ
	-DIBENZPYRENE	23.03	740.000	J

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Semivolatile Analysis Data - EBJR1DL
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	3.26	4400.000	JBD
102-36-3	BENZENE, 1,2-DICHLORO-4-ISOCYA	6.69	440.000	NJD
	ANTHRACENE, -METHYL-	12.03	440.000	JD
203-64-5	4H-CYCLOPENTA[DEF]PHENANTHRENE	12.20	820.000	NJD
314-40-9	BROMACIL	12.30	880.000	NJD
84-65-1	9,10-ANTHRACENEDIONE	12.62	560.000	NJD
	UNKNOWN	13.66	420.000	JD
	11H-BENZO[]FLUORENE	14.28	750.000	JD
	PYRENE, -METHYL-	14.49	1300.000	JD
	11H-BENZO[]FLUORENE	14.61	550.000	JD
	PYRENE, -METHYL-	14.69	460.000	JD
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	15.52	510.000	NJD
239-35-0	BENZO[B]NAPHTHO[2,1-D]THIOPHEN	15.72	690.000	NJD
203-12-3	BENZO[GHI]FLUORANTHENE	15.81	900.000	NJD
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	15.91	680.000	NJD
	BENZ[A]ANTHRACENE, -METHYL-	17.00	620.000	JD
	CHRYSENE, -METHYL-	17.09	500.000	JD
	UNKNOWN	17.26	440.000	JD
205-82-3	BENZO[J]FLUORANTHENE	18.40	840.000	NJD
192-97-2	BENZO[E]PYRENE	18.68	2800.000	NJD
198-55-0	PERYLENE	18.91	1100.000	NJD
	UNKNOWN PAH	20.98	830.000	JD
	DIBENZPYRENE	23.72	890.000	JD
	NAPHTHO[]CHRYSENE	23.92	650.000	JD

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - EBJQ9
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	4.69	1200.000	J
10544-50-0	SULFUR, MOL. (S8)	8.67	1000.000	NJ
132-65-0	DIBENZOTHIOPHENE	10.80	610.000	NJ
	ANTHRACENE, -METHYL-	11.98	520.000	J
	ANTHRACENE, -METHYL-	12.03	700.000	J
	UNKNOWN PAH	12.21	1400.000	J
612-94-2	NAPHTHALENE, 2-PHENYL-	12.58	630.000	NJ
84-65-1	9,10-ANTHRACENEDIONE	12.62	980.000	NJ
	11H-BENZO[] FLUORENE	14.28	490.000	J
	PYRENE, -METHYL-	14.49	1400.000	J
	11H-BENZO[] FLUORENE	14.61	780.000	J
	PYRENE, -METHYL-	14.69	600.000	J
50-29-3	CHLOROPHENOTHANE	15.36	790.000	NJ
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	15.51	680.000	NJ
239-35-0	BENZO[B]NAPHTHO[2,1-D]THIOPHEN	15.72	670.000	NJ
	UNKNOWN PAH	15.79	910.000	J
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	15.91	490.000	NJ
	CHRYSENE, -METHYL-	17.00	690.000	J
	UNKNOWN	17.26	470.000	J
205-82-3	BENZO[J] FLUORANTHENE	18.39	800.000	NJ
192-97-2	BENZO[E]PYRENE	18.68	2600.000	NJ
	UNKNOWN PAH	18.90	910.000	J
	UNKNOWN	20.33	810.000	J
	[]DIBENZPYRENE	23.72	730.000	J
	-DIBENZPYRENE	23.92	700.000	J
	NAPHTHO[]CHRYSENE	24.04	610.000	J

Semivolatile Analysis Data - EBJQ2DL
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	4.26	860.000	JD
132-65-0	PHENANTHRENE, -TETRAHYDRO- DIBENZOTHIOPHENE	10.74 10.80	450.000 780.000	JD NJD
	ANTHRACENE, -METHYL- PHENANTHRENE, -METHYL-	11.98 12.03	510.000 660.000	JD JD
203-64-5	4H-CYCLOPENTA[DEF]PHENANTHRENE	12.20	1700.000	NJD
612-94-2	PHENANTHRENE, -METHYL- NAPHTHALENE, 2-PHENYL- UNKNOWN PAH	12.25 12.57 13.67	440.000 510.000 430.000	JD NJD JD
	11H-BENZO[] FLUORENE 11H-BENZO[] FLUORENE	14.28 14.49	360.000 1400.000	JD JD
	PYRENE, -METHYL- PYRENE, -METHYL- UNKNOWN AMIDE	14.61 14.69 15.20	1200.000 380.000 530.000	JD JD JD
239-35-0	BENZO[B]NAPHTHO[2,1-D]THIOPHEN	15.71	780.000	NJD
203-12-3	BENZO[GHI] FLUORANTHENE UNKNOWN PAH UNKNOWN PAH	15.80 15.85 16.43	850.000 500.000 840.000	NJD JD JD
	BENZ[A]ANTHRACENE, -METHYL- UNKNOWN BENZO[] FLUORANTHENE	17.00 17.29 18.39	390.000 480.000 740.000	JD JD JD
198-55-0	PERYLENE UNKNOWN PAH	18.91 19.22	1300.000 600.000	NJD JD
14021-23-9	D-FRIEDOOLEAN-14-ENE, 3-METHOX DIBENZPYRENE DIBENZPYRENE	20.96 23.72 23.92	3600.000 910.000 790.000	NJD JD JD

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Semivolatile Analysis Data - EBJQ8
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	OXIRANE, -DIMETHYL--PROPYL-	2.60	12000.000	J
	-HEPTADIENAL, -DIMETHYL-	3.42	46000.000	J
	UNKNOWN	3.54	70000.000	J
	UNKNOWN	3.60	60000.000	J
	UNKNOWN	4.34	130000.000	J
	BENZENE, -ETHYL--DIMETHYL-	4.63	120000.000	J
	UNKNOWN	4.67	66000.000	J
	UNKNOWN	5.01	31000.000	J
	-NONENE, -BUTYL-	5.07	60000.000	J
	UNKNOWN	5.20	28000.000	J
	-TRIDECENE, -METHYL-	5.46	33000.000	J
	NAPHTHALENE, -DIMETHYL-	6.53	36000.000	J
	UNKNOWN	6.67	130000.000	J
	-DODECADIEN--OL, -TRIMETHYL-,	6.97	28000.000	J
	NAPHTHALENE, -TRIMETHYL-	7.57	62000.000	J
	NAPHTHALENE, -TRIMETHYL-	7.71	23000.000	J
	UNKNOWN	18.77	30000.000	J
	UNKNOWN	21.41	25000.000	J
	UNKNOWN	21.57	37000.000	J
	UNKNOWN	21.64	43000.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - SBLK3
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
141-79-7	3-PENTEN-2-ONE, 4-METHYL-	3.11	7000.000	NJA
	UNKNOWN	3.18	1700.000	J
	UNKNOWN	3.27	310.000	J
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	3.36	2300.000	NJA
	UNKNOWN	3.40	130.000	J
	UNKNOWN ALKENE	3.63	290.000	J
	UNKNOWN	3.76	90.000	J
	UNKNOWN	3.85	960.000	J
	-ETHYL--HEXENE	3.93	400.000	J
	UNKNOWN	4.07	1100.000	J
	UNKNOWN	4.37	100.000	J
	UNKNOWN	5.04	120.000	J
	UNKNOWN	18.09	92.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - EBJR5
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.11	1900.000	J
57-10-3	HEXADECANOIC ACID	11.24	460.000	NJB
10544-50-0	SULFUR, MOL. (SB)	11.51	220.000	NJ
112-80-1	OLEIC ACID	12.35	330.000	NJ
57-11-4	OCTADECANOIC ACID	12.50	200.000	NJ
	11H-BENZO[]FLUORENE	12.70	200.000	J
	UNKNOWN AMIDE	13.66	2400.000	JB
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	13.86	170.000	NJ
	UNKNOWN	14.53	130.000	J
	UNKNOWN	16.49	320.000	J
	UNKNOWN	16.73	260.000	J
	UNKNOWN PAH	17.12	170.000	J
	UNKNOWN PAH	17.19	150.000	J
	UNKNOWN PAH	17.34	260.000	J
	UNKNOWN	17.40	380.000	J
	UNKNOWN PAH	17.47	270.000	J
	UNKNOWN	17.71	180.000	J
	UNKNOWN	17.96	180.000	J
	UNKNOWN	18.04	160.000	J
83-47-6	.GAMMA.-SITOSTEROL	18.21	970.000	NJ
	UNKNOWN PAH	18.36	160.000	J
	UNKNOWN	18.51	240.000	J
	UNKNOWN	18.75	420.000	J
0-00-0	1,2:3,4-DIBENZPYRENE	19.06	320.000	NJ
	DIBENZPYRENE	19.14	220.000	J
	NAPHTHO[]CHRYSENE	19.48	250.000	J
	UNKNOWN	20.85	1600.000	J
	UNKNOWN	21.43	220.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - SBLK1
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	2.65	2200.000	J
	UNKNOWN	3.06	2300.000	J
	UNKNOWN	3.19	16000.000	J
	UNKNOWN	3.28	6200.000	J
	UNKNOWN AMIDE	12.64	7700.000	J
	UNKNOWN AMIDE	13.94	230000.000	J
	UNKNOWN AMIDE	14.08	12000.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - EBJR4
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
10544-50-0	UNKNOWN	1.11	1300.000	J
	SULFUR, MOL. (S8)	11.51	910.000	NJ
	UNKNOWN	16.46	180.000	J
	UNKNOWN	16.73	340.000	J
	UNKNOWN	17.01	440.000	J
	UNKNOWN	17.16	310.000	J
	UNKNOWN	17.33	220.000	J
	UNKNOWN	17.39	310.000	J
	UNKNOWN	17.48	240.000	J
	UNKNOWN	17.95	260.000	J
	UNKNOWN	18.03	350.000	J
83-47-6	. GAMMA. -SITOSTEROL	18.20	630.000	NJ
	UNKNOWN	18.31	230.000	J
	UNKNOWN	18.40	240.000	J
	UNKNOWN	18.46	200.000	J
	UNKNOWN	18.68	210.000	J
	UNKNOWN	19.05	370.000	J
	UNKNOWN	19.14	250.000	J
	UNKNOWN	19.21	190.000	J
	UNKNOWN	19.40	180.000	J
	UNKNOWN	19.47	310.000	J
	UNKNOWN	19.53	190.000	J
	UNKNOWN	19.77	220.000	J
	UNKNOWN	20.16	230.000	J
	UNKNOWN	20.23	180.000	J
	UNKNOWN	20.32	220.000	J
	UNKNOWN	20.38	190.000	J
	UNKNOWN	20.44	230.000	J
	-TETRAHYDROQUINOXALINE	21.09	340.000	J
	-ALLYL--METHYLPYRAZINE	21.28	230.000	J

Semivolatile Analysis Data - EBJR3
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.11	2200.000	J
57-10-3	HEXADECANOIC ACID	11.23	330.000	NJ
1210-12-4	9-ANTHRACENECARBONITRILE	12.35	220.000	NJ
638-66-4	OCTADECANAL	14.00	120.000	NJ
112-85-6	DOCOSANOIC ACID	14.74	140.000	NJ
	UNKNOWN ORGANIC ACID	15.26	130.000	J
112-85-6	DOCOSANOIC ACID	15.76	190.000	NJ
	UNKNOWN ORGANIC ACID	16.07	300.000	J
	-DOTRIACONTANOL	16.37	1400.000	J
14021-23-9	D-FRIEDOOLEAN-14-ENE, 3-METHOX	17.83	2000.000	NJ
	-CYCLOPROPA []NAPHTHALENE,	17.94	640.000	J
	UNKNOWN	18.01	120.000	J
83-47-6	.GAMMA.-SITOSTEROL	18.19	1200.000	NJ
	UNKNOWN	18.34	330.000	J
	UNKNOWN	18.39	150.000	J
638-95-9	.ALPHA.-AMYRIN	18.50	150.000	NJ
	UNKNOWN	18.65	210.000	J
1058-61-3	STIGMAST-4-EN-3-ONE	18.73	900.000	NJ
	UNKNOWN	19.05	890.000	J
	UNKNOWN	19.21	320.000	J
	UNKNOWN	19.39	170.000	J
	UNKNOWN	19.69	140.000	J
	UNKNOWN	19.80	140.000	J
	UNKNOWN	19.97	120.000	J
	UNKNOWN	20.61	300.000	J
	UNKNOWN	20.84	450.000	J
	UNKNOWN	21.01	150.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - EBJR1
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.12	3000.000	J
84-65-1	9,10-ANTHRACENEDIONE	11.19	220.000	NJ
314-40-9	BROMACIL	11.30	300.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.15	220.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.35	180.000	NJ
	11H-BENZO[I]FLUORENE	12.70	210.000	J
	PYRENE, -METHYL-	12.83	210.000	J
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	13.53	200.000	NJ
243-46-9	BENZO[B]NAPHTHO[2,3-D]THIOPHEN	13.67	220.000	NJ
203-12-3	BENZO[GHI]FLUORANTHENE	13.72	280.000	NJ
	CHRYSENE, -METHYL-	14.75	170.000	J
205-82-3	BENZO[J]FLUORANTHENE	15.84	190.000	NJ
198-55-0	PERYLENE	16.25	400.000	NJ
	UNKNOWN	17.40	180.000	J
	BENZO[I]TRIPHENYLENE	17.47	320.000	J
	UNKNOWN	17.99	280.000	J
	UNKNOWN	18.75	170.000	J
192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	19.07	490.000	NJ
	-DIBENZPYRENE	19.15	440.000	J
	DIBENZPYRENE	19.19	290.000	J
	-DIBENZPYRENE	19.38	170.000	J
192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	19.51	670.000	NJ
	UNKNOWN PAH	19.62	360.000	J
	UNKNOWN	19.75	180.000	J
	UNKNOWN	20.16	200.000	J
	UNKNOWN	20.34	190.000	J
	UNKNOWN	20.52	310.000	J
	UNKNOWN	20.60	220.000	J
	UNKNOWN	20.74	190.000	J
	UNKNOWN	20.79	180.000	J
	UNKNOWN	20.89	330.000	J
	UNKNOWN	20.95	200.000	J

Semivolatile Analysis Data - EBJR0
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.14	6500.000	J
	UNKNOWN AMIDE	13.66	1700.000	JB
	UNKNOWN	16.61	1800.000	J
	UNKNOWN	16.64	1300.000	J
	UNKNOWN	16.68	1800.000	J
	UNKNOWN	16.72	3300.000	J
	UNKNOWN	16.82	2800.000	J
	UNKNOWN	16.86	2600.000	J
6410-10-2	2-NAPHTHALENOL, 1-[(4-NITROPHE	16.96	3400.000	NJ
	UNKNOWN PAH	17.14	2100.000	J
	UNKNOWN	17.16	1700.000	J
	UNKNOWN	17.20	1700.000	J
	UNKNOWN	17.40	2900.000	J
	UNKNOWN	17.91	1900.000	J
	UNKNOWN PAH	17.96	2500.000	J
	UNKNOWN	18.04	2200.000	J
	UNKNOWN	18.14	3000.000	J
83-47-6	.GAMMA.-SITOSTEROL	18.21	5000.000	NJ
	-AMYRIN	18.33	1900.000	J
	UNKNOWN	18.41	2600.000	J
	UNKNOWN	18.52	2800.000	J
	UNKNOWN	18.58	2200.000	J
	UNKNOWN	18.69	1900.000	J
	UNKNOWN	18.76	2800.000	J
	-DIBENZPYRENE	19.06	2700.000	J
	UNKNOWN	19.13	1900.000	J
	UNKNOWN	19.23	2200.000	J
	-DIBENZPYRENE	19.49	2500.000	J
	UNKNOWN	19.72	1500.000	J
	UNKNOWN	19.79	1700.000	J
	UNKNOWN	20.31	1300.000	J
	UNKNOWN	20.51	1700.000	J

Semivolatile Analysis Data - EBJQ6
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.15	21000.000	J
84-65-1	9,10-ANTHRACENEDIONE	11.31	33.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.27	3700.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.47	4200.000	NJ
	11H-BENZO[]FLUORENE	12.82	4500.000	J
	PYRENE, -METHYL-	12.96	4000.000	J
	UNKNOWN	13.58	1800.000	J
	UNKNOWN ORGANIC ACID	13.91	1800.000	J
	BENZO()CARBAZOLE	14.65	1900.000	J
	BENZO[]FLUORANTHENE	15.97	1800.000	J
192-97-2	BENZO[E]PYRENE	16.19	5200.000	NJ
	DINAPHTHO[]THIOPHENE	17.50	2200.000	J
	UNKNOWN PAH	17.59	2000.000	J
0-00-0	1,2:3,4-DIBENZPYRENE	19.21	4300.000	NJ
	[]DIBENZPYRENE	19.27	3000.000	J
	-DIBENZPYRENE	19.51	1900.000	J
192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	19.63	4000.000	NJ
	UNKNOWN	19.89	4800.000	J
	UNKNOWN	20.02	2600.000	J
	UNKNOWN	20.19	3300.000	J
	UNKNOWN	20.26	2600.000	J
	UNKNOWN	20.30	2800.000	J
	UNKNOWN	20.41	7000.000	J
	UNKNOWN	20.57	2100.000	J
	UNKNOWN	20.62	3700.000	J
	UNKNOWN	20.68	6800.000	J
	UNKNOWN	20.77	7200.000	J
	UNKNOWN	20.87	3000.000	J
	UNKNOWN	20.90	2700.000	J
	UNKNOWN	20.95	4300.000	J
	UNKNOWN	21.05	5100.000	J
	UNKNOWN	21.12	3300.000	J

Semivolatile Analysis Data - EBJQ5
 Tentatively Identified Compounds

CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	13.74	17000.000	J
	UNKNOWN	14.31	13000.000	J
	UNKNOWN	14.36	20000.000	J
	UNKNOWN	14.42	13000.000	J
	UNKNOWN	14.46	14000.000	J
	UNKNOWN	14.99	15000.000	J
	UNKNOWN	15.50	29000.000	J
	UNKNOWN	15.72	21000.000	J
	UNKNOWN	15.90	26000.000	J
	UNKNOWN	15.94	13000.000	J
	UNKNOWN	16.20	18000.000	J
	UNKNOWN	16.30	23000.000	J
	UNKNOWN	16.49	13000.000	J
	UNKNOWN	16.53	22000.000	J
	UNKNOWN	16.62	23000.000	J
	UNKNOWN	16.66	18000.000	J
	UNKNOWN	16.82	26000.000	J
	UNKNOWN PAH	17.04	40000.000	J
	UNKNOWN	17.79	36000.000	J
	UNKNOWN	17.93	19000.000	J
	UNKNOWN	18.13	27000.000	J
	UNKNOWN	18.19	15000.000	J
	UNKNOWN	18.26	18000.000	J
	UNKNOWN	18.41	25000.000	J
	UNKNOWN	18.48	25000.000	J
	UNKNOWN	18.56	13000.000	J
	UNKNOWN	18.62	16000.000	J
	UNKNOWN	18.81	22000.000	JB
	UNKNOWN	18.91	31000.000	JB
	UNKNOWN	19.02	15000.000	J
	UNKNOWN	19.16	14000.000	J
174-25-4	TETRADECANAL	20.43	22000.000	NJ

Semivolatile Analysis Data - EBJQ4
 Tentatively Identified Compounds

CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.18	6000.000	J
	UNKNOWN	1.35	350.000	J
	UNKNOWN	3.14	1300.000	J
2091-29-4	9-HEXADECENOIC ACID	11.26	430.000	NJ
1210-12-4	9-ANTHRACENECARBONITRILE	12.48	280.000	NJ
	-OCTADECENAL	14.12	130.000	J
	UNKNOWN ORGANIC ACID	15.88	140.000	J
192-97-2	BENZO[E]PYRENE	16.18	260.000	NJ
	UNKNOWN	17.48	250.000	J
83-48-7	STIGMASTEROL	18.08	530.000	NJ
	UNKNOWN	18.27	400.000	J
83-47-6	.GAMMA.-SITOSTEROL	18.33	1200.000	NJ
	UNKNOWN	18.45	150.000	J
1058-61-3	STIGMAST-4-EN-3-ONE	18.49	330.000	NJ
	UNKNOWN	18.60	250.000	J
	UNKNOWN	18.64	420.000	J
	UNKNOWN	18.71	180.000	J
	UNKNOWN PAH	18.79	220.000	J
	UNKNOWN	19.01	620.000	J
192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	19.19	400.000	NJ
	UNKNOWN	19.30	130.000	J
	UNKNOWN	19.37	390.000	J
	UNKNOWN	19.53	190.000	J
	-DIBENZPYRENE	19.63	170.000	J
	UNKNOWN	20.30	240.000	J
	UNKNOWN	20.87	400.000	J
	UNKNOWN	20.93	200.000	J
	UNKNOWN	21.02	150.000	J

Semivolatile Analysis Data - EBJQ3
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.18	5500.000	J
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.26	150.000	NJ
1210-12-4	9-ANTHRACENECARBONITRILE	12.48	250.000	NJ
	11H-BENZO[]FLUORENE	12.81	230.000	J
	PYRENE, -METHYL-	12.95	140.000	J
	-TERPHENYL	13.64	130.000	J
	UNKNOWN PAH	14.64	140.000	J
192-97-2	BENZO[E]PYRENE	16.19	570.000	NJ
	UNKNOWN	16.62	200.000	J
25615-11-6	A'-NEOGAMMACER-22(29)-EN-3-ONE	18.27	220.000	NJ
83-47-6	.GAMMA.-SITOSTEROL	18.34	310.000	NJ
	UNKNOWN	18.39	170.000	J
	UNKNOWN	19.06	220.000	J
0-00-0	1,2:3,4-DIBENZPYRENE	19.20	460.000	NJ
	DIBENZPYRENE	19.27	370.000	J
	[]DIBENZPYRENE	19.31	260.000	J
	UNKNOWN	19.36	530.000	J
	NAPHTHO[]CHRYSENE	19.51	260.000	J
	NAPHTHO[]CHRYSENE	19.62	590.000	J
	-DIBENZPYRENE	19.71	190.000	J
	UNKNOWN	19.75	210.000	J
	UNKNOWN	19.80	180.000	J
	UNKNOWN	20.22	420.000	J
	UNKNOWN	20.31	190.000	J
	UNKNOWN	20.35	390.000	J
	UNKNOWN	20.66	260.000	J
	UNKNOWN	20.94	180.000	J
	UNKNOWN	21.03	180.000	J
	UNKNOWN	21.19	420.000	J

Semivolatile Analysis Data - EBJQ2
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.20	4600.000	J
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	1.27	920.000	NJAB
132-65-0	DIBENZOTHIOPHENE	9.73	1500.000	NJ
	ANTHRACENE, -METHYL-	10.78	850.000	J
	ANTHRACENE, -METHYL-	10.82	170.000	J
203-64-5	4H-CYCLOPENTA[DEF]PHENANTHRENE	10.93	300.000	NJ
	ANTHRACENE, -METHYL-	10.98	100.000	J
35465-71-5	2-PHENYLNAPHTHALENE	11.32	250.000	NJ
	PHENANTHRENE, -DIMETHYL-	11.72	100.000	J
	UNKNOWN PAH	12.10	110.000	J
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.28	350.000	NJ
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	12.46	140.000	NJ
	11H-BENZO[I]FLUORENE	12.83	360.000	J
	PYRENE, -METHYL-	12.94	340.000	J
203-12-3	BENZO[GH]FLUORANTHENE	13.86	140.000	NJ
	UNKNOWN PAH	14.37	200.000	J
	-AMINOPYRENE	14.65	130.000	J
	UNKNOWN PAH	15.07	110.000	J
	BENZO[I]FLUORANTHENE	15.98	700.000	J
198-55-0	PERYLENE	16.37	1200.000	NJ
	UNKNOWN	16.62	960.000	J
	UNKNOWN PAH	17.60	770.000	J
	UNKNOWN PAH	17.85	660.000	J
	UNKNOWN PAH	17.98	5200.000	J
	UNKNOWN PAH	18.10	1800.000	J
0-00-0	1,2:3,4-DIBENZPYRENE	19.20	1400.000	NJ
192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	19.28	1300.000	NJ
	DIBENZPYRENE	19.33	800.000	J
191-07-1	CORONENE	19.37	770.000	NJ
	UNKNOWN	21.06	770.000	J

Semivolatile Analysis Data - EBJQ1
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

INSTRUMENT NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	1.16	3900.000	J
791-28-6	PHOSPHINE OXIDE, TRIPHENYL-	14.63	420.000	NJ
	UNKNOWN	15.39	220.000	J
	UNKNOWN	15.61	220.000	J
	UNKNOWN	15.69	230.000	J
	UNKNOWN	15.88	340.000	J
192-97-2	BENZO[E]PYRENE	16.17	530.000	NJ
	UNKNOWN	16.55	560.000	J
	UNKNOWN	16.63	270.000	J
	UNKNOWN	16.70	220.000	J
	UNKNOWN	16.86	420.000	J
	UNKNOWN	16.94	430.000	J
	UNKNOWN	17.01	280.000	J
	UNKNOWN	17.28	330.000	J
	DIBENZO[]CHRYSENE	17.57	240.000	J
	UNKNOWN	17.83	210.000	J
	UNKNOWN PAK	17.88	210.000	J
	UNKNOWN	18.03	230.000	J
	UNKNOWN	18.09	470.000	J
	UNKNOWN	18.27	350.000	J
	UNKNOWN	18.35	420.000	J
	UNKNOWN	18.39	350.000	J
	UNKNOWN	18.54	390.000	J
	UNKNOWN	18.66	280.000	J
	UNKNOWN	18.72	300.000	J
	UNKNOWN	19.08	440.000	J
	-DIBENZPYRENE	19.19	310.000	J
	UNKNOWN	19.37	260.000	J
	DIBENZPYRENE	19.63	240.000	J
	UNKNOWN	19.73	200.000	J

Volatile Analysis Data - EBJR3
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
UNKNOWN		17.12	7.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Volatile Analysis Data - EBJR5DL
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
UNKNOWN		17.11	71.000	JD

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Semivolatile Analysis Data - SBLK2
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	1.27	1300.000	NJA
	UNKNOWN	1.74	83.000	J
	UNKNOWN	1.89	800.000	J
	UNKNOWN	2.07	160.000	J
	-FURANONE, -DIMETHYL-	2.26	140.000	J
	UNKNOWN	2.34	560.000	J
57-10-3	HEXADECANOIC ACID	11.33	98.000	NJ
	UNKNOWN AMIDE	13.74	97.000	J
502-62-5	.PSI.,.PSI.-CAROTENE, 7,7',8,8	16.15	220.000	NJ
	UNKNOWN	18.88	300.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Volatile Analysis Data - EBJQ3
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
91-20-3	NAPHTHALENE, METHYL-	15.46	30.000	J
	NAPHTHALENE, METHYL-	16.16	19.000	J
	NAPHTHALENE	18.57	20.000	NJ

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Volatile Analysis Data - EBJR0
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	17.08	8.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Volatile Analysis Data - EBJQ5
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN CYCLOALKANE	12.98	16.000	J
	CYCLOHEXANE, TRIMETHYL-	13.24	21.000	J
	UNKNOWN CYCLOALKANE	13.83	52.000	J
	UNKNOWN CYCLOALKANE	14.00	10.000	J
	UNKNOWN CYCLOALKANE	14.17	160.000	J
	UNKNOWN HYDROCARBON	14.41	110.000	J
	UNKNOWN HYDROCARBON	14.56	160.000	J
	UNKNOWN	15.34	550.000	J
	UNKNOWN CYCLOALKANE	15.55	160.000	J
	UNKNOWN HYDROCARBON	15.68	370.000	J
	UNKNOWN	15.91	280.000	J
	UNKNOWN	16.17	200.000	J
	UNKNOWN ALKYL BENZENE	16.41	28.000	J
	NAPHTHALENE	16.50	82.000	J
	UNKNOWN HYDROCARBON	16.66	150.000	J
	UNKNOWN	16.87	97.000	J
	UNKNOWN HYDROCARBON	17.01	35.000	J
	UNKNOWN	17.17	60.000	J
	UNKNOWN	17.31	43.000	J
	UNKNOWN	17.40	62.000	J
	UNKNOWN HYDROCARBON	17.86	34.000	J
	UNKNOWN HYDROCARBON	18.05	28.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Volatile Analysis Data - EBJQ9
Tentatively Identified Compounds

CASE NO: 25625
SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	CYCLOTETRASILOXANE	15.10	25.000	J
	UNKNOWN	17.11	20.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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Volatile Analysis Data - VHBLK1
 Tentatively Identified Compounds

 CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	12.55	5.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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 Volatile Analysis Data - VBLK1
 Tentatively Identified Compounds

 CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	17.06	5.000	J

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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 Volatile Analysis Data - EBJQ1
 Tentatively Identified Compounds

 CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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 Volatile Analysis Data - EBJQ4
 Tentatively Identified Compounds

 CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	NAPHTHALENE, METHYL-	15.38	10.000	J
	NAPHTHALENE, METHYL-	15.40	12.000	J
	NAPHTHALENE, METHYL-	16.09	8.000	J
83-32-9	ACENAPHTHENE	17.75	48.000	NJ

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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 Volatile Analysis Data - EBJQ2
 Tentatively Identified Compounds

 CASE NO: 25625
 SDG NO: EBJQ1

LABORATORY: SOUTHWEST LABS OF OKLAHOM

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	16.34	20.000	J
	UNKNOWN	17.82	8.000	J
91-20-3	NAPHTHALENE	18.58	110.000	NJ

FILE NAME: EBJQ1.SDG DATE: 10/24/97 TIME: 10:00 CADRE 2.3.1

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TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR5MS X103 Matrix Spike Soil 1.0 16	EBJR5MSD X103 Matrix Spike Dup Soil 1.0 16	PBLKSB Method Blank Soil 1.0 0	PBLKSJ Method Blank Soil 1.0 0
PES				
alpha-BHC	2.0 U	2.0 U	1.7 U	51 U
beta-BHC	2.0 U	2.0 U	1.7 U	51 U
delta-BHC	2.0 U	2.0 U	1.7 U	51 U
gamma-BHC (Lindane)	17	18	1.7 U	51 U
Heptachlor	16	16	1.7 U	51 U
Aldrin	13 J	14 J	1.7 U	51 U
Heptachlor epoxide	2.0 U	2.0 U	1.7 U	51 U
Endosulfan I	2.0 U	2.0 U	1.7 U	51 U
Dieldrin	32 J	32 J	3.3 U	99 U
4,4'-DDE	3.9 U	3.9 U	3.3 U	99 U
Endrin	36	36	3.3 U	99 U
Endosulfan II	3.9 U	3.9 U	3.3 U	99 U
4,4'-DDD	9.5 J	7.9	3.3 U	99 U
Endosulfan sulfate	3.9 U	3.9 U	3.3 U	99 U
4,4'-DDT	29 J	33 J	3.3 U	99 U
Methoxychlor	20 UJ	20 UJ	17 U	510 U
Endrin ketone	3.9 U	3.9 U	3.3 U	99 U
Endrin aldehyde	3.9 U	3.9 U	3.3 U	99 U
alpha-Chlordane	2.0 U	2.0 U	1.7 U	51 U
gamma-Chlordane	2.0 U	2.0 U	1.7 U	51 U
Toxaphene	200 U	200 U	170 U	5100 U
Aroclor-1016	39 U	39 U	33 U	990 U
Aroclor-1221	80 U	80 U	67 U	2000 U
Aroclor-1232	39 U	39 U	33 U	990 U
Aroclor-1242	39 U	39 U	33 U	990 U
Aroclor-1248	39 U	39 U	33 U	990 U
Aroclor-1254	39 U	39 U	33 U	990 U
Aroclor-1260	39 U	39 U	33 U	990 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR4DL	EBJR5	EBJR5DL	EBJR5DLMS	EBJR5DLMSD
	X102 Routine Sample Soil 10.0 12	X103 Routine Sample Soil 1.0 16	X103 Routine Sample Soil 10.0 16	X103 Matrix Spike Soil 10.0 16	X103 Matrix Spike Dup Soil 10.0 16
PES					
alpha-BHC	19 U	2.0 U	20 U	20 U	20 U
beta-BHC	19 U	2.0 U	20 U	20 U	20 U
delta-BHC	19 U	2.0 U	20 U	20 U	20 U
gamma-BHC (Lindane)	19 U	2.0 U	20 U	14 J	16 J
Heptachlor	19 U	2.0 U	20 U	18 J	20 J
Aldrin	19 U	2.0 U	20 U	14 J	15 J
Heptachlor epoxide	19 U	2.0 U	20 U	20 U	20 U
Endosulfan I	19 U	2.0 U	20 U	20 U	20 U
Dieldrin	38 U	3.9 U	39 U	30 J	32 J
4,4'-DDE	38 U	3.9 U	39 U	39 U	39 U
Endrin	38 U	3.9 U	39 U	35 J	37 J
Endosulfan II	38 U	3.9 U	39 U	39 U	39 U
4,4'-DDD	38 U	4.0 J	39 U	39 U	39 U
Endosulfan sulfate	38 U	3.9 U	39 U	39 U	39 U
4,4'-DDT	38 U	3.9 UJ	39 U	31 J	34 J
Methoxychlor	190 U	20 UJ	200 U	200 U	200 U
Endrin ketone	38 U	21 J	39 U	39 U	39 U
Endrin aldehyde	38 U	3.9 U	39 U	39 U	39 U
alpha-Chlordane	19 U	2.0 U	20 U	20 U	20 U
gamma-Chlordane	19 U	2.0 U	20 U	20 U	20 U
Toxaphene	1900 U	200 U	2000 U	2000 U	2000 U
Aroclor-1016	380 U	39 U	390 U	390 U	390 U
Aroclor-1221	760 U	80 U	800 U	800 U	800 U
Aroclor-1232	380 U	39 U	390 U	390 U	390 U
Aroclor-1242	380 U	39 U	390 U	390 U	390 U
Aroclor-1248	380 U	39 U	390 U	390 U	390 U
Aroclor-1254	380 U	39 U	390 U	390 U	390 U
Aroclor-1260	380 U	39 U	390 U	390 U	390 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINNERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

ERA SAMPLE NUMBER: ADDITIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ8DL X111 Routine Sample Soil 10.0 3	EBJQ9 X112 Routine Sample Soil 1.0 21	EBJQ9DL X112 Routine Sample Soil 10.0 21	EBJRO X113 Routine Sample Soil 1.0 28	EBJRODL X113 Routine Sample Soil 10.0 28
PES					
alpha-BHC	520 U	2.2 U	22 U	2.4 U	24 U
beta-BHC	520 U	2.2 U	22 U	2.4 U	24 U
delta-BHC	520 U	2.2 U	22 U	2.4 U	24 U
gamma-BHC (Lindane)	520 U	2.2 U	22 U	2.4 U	24 U
Heptachlor	520 U	2.9 J	22 U	2.4 U	24 U
Aldrin	520 U	2.2 J	22 U	2.4 U	24 U
Heptachlor epoxide	520 U	2.2 U	22 U	2.4 U	24 U
Endosulfan I	520 U	2.5 U	22 U	2.4 U	24 U
Dieldrin	1000 U	4.2 U	42 U	4.6 U	46 U
4,4'-DDE	1000 U	4.2 U	42 U	4.6 U	46 U
Endrin	1000 U	7.3 J	42 U	4.6 U	46 U
Endosulfan II	1000 U	4.2 U	42 U	4.6 U	46 U
4,4'-DDD	1000 U	9.9 J	42 U	5.9 J	46 U
Endosulfan sulfate	1000 U	4.2 U	42 U	4.6 U	46 U
4,4'-DDT	1000 U	4.2 UJ	42 U	10 J	46 U
Methoxychlor	5200 U	22 UJ	220 U	24 UJ	240 U
Endrin ketone	1000 U	4.2 U	42 U	4.6 U	46 U
Endrin aldehyde	1000 U	4.2 U	42 U	4.6 U	46 U
alpha-Chlordane	520 U	2.7 J	22 U	2.4 U	24 U
gamma-Chlordane	520 U	2.2 U	22 U	2.4 U	24 U
Toxaphene	52000 U	220 U	2200 U	240 U	2400 U
Aroclor-1016	10000 U	42 U	420 U	46 U	460 U
Aroclor-1221	21000 U	85 U	850 U	93 U	930 U
Aroclor-1232	10000 U	42 U	420 U	46 U	460 U
Aroclor-1242	10000 U	42 U	420 U	46 U	460 U
Aroclor-1248	10000 U	42 U	420 U	46 U	460 U
Aroclor-1254	10000 U	42 U	420 U	46 U	460 U
Aroclor-1260	10000 U	42 U	420 U	46 U	460 U

FILE NAME: EBJQ1 DATE: 10/24/97 TIME: 10:02 CADRE 2.3.1

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Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINNERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR1 X114 Routine Sample Soil 1.0 16	EBJR1DL X114 Routine Sample Soil 10.0 16	EBJR3 X101 Routine Sample Soil 1.0 21	EBJR3DL X101 Routine Sample Soil 10.0 21	EBJR4 X102 Routine Sample Soil 1.0 12
PES					
alpha-BHC	2.0 U	20 U	2.2 U	22 U	1.9 UJ
beta-BHC	3.6 J	20 U	2.2 U	22 U	1.9 UJ
delta-BHC	2.6 J	20 U	2.2 U	22 U	1.9 UJ
gamma-BHC (Lindane)	2.0 U	20 U	2.2 U	22 U	1.9 UJ
Heptachlor	5.2 J	20 U	2.2 U	22 U	1.9 UJ
Aldrin	2.0 U	20 U	2.2 U	22 U	1.9 UJ
Heptachlor epoxide	2.9 J	20 U	2.2 U	22 U	1.9 UJ
Endosulfan I	15 J	20 U	2.2 U	22 U	1.9 UJ
Dieldrin	34 J	41 J	4.2 U	42 U	3.8 UJ
4,4'-DDE	57 J	44 J	40 J	26 J	3.8 UJ
Endrin	130 J	170 J	4.2 U	42 U	11 J
Endosulfan II	180 J	260 J	4.2 U	42 U	3.8 UJ
4,4'-DDD	20 J	320 J	4.2 U	42 U	3.8 UJ
Endosulfan sulfate	3.9 UJ	39 U	4.2 U	42 U	3.8 UJ
4,4'-DDT	460 J	560 J	15 J	14 J	3.8 UJ
Methoxychlor	74 J	350 J	22 UJ	220 U	19 UJ
Endrin ketone	63 J	140 J	4.2 U	42 U	3.8 UJ
Endrin aldehyde	71 J	63 J	4.2 U	42 U	3.8 UJ
alpha-Chlordane	42 J	57 J	2.2 U	22 U	1.9 UJ
gamma-Chlordane	110 J	160 J	2.3 J	22 U	1.9 UJ
Toxaphene	200 U	2000 U	220 U	2200 U	190 UJ
Aroclor-1016	39 U	390 U	42 U	420 U	38 UJ
Aroclor-1221	80 U	800 U	85 U	850 U	76 UJ
Aroclor-1232	39 U	390 U	42 U	420 U	38 UJ
Aroclor-1242	39 U	390 U	42 U	420 U	38 UJ
Aroclor-1248	39 U	390 U	42 U	420 U	38 UJ
Aroclor-1254	1400 J	1900 J	42 U	420 U	38 UJ
Aroclor-1260	39 U	390 U	42 U	420 U	38 UJ

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: LABORATORY SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ3DL X106 Routine Sample Soil 10.0 15	EBJQ4 X107 Routine Sample Soil 1.0 20	EBJQ4DL X107 Routine Sample Soil 10.0 20	EBJQ5 X108 Routine Sample Soil 1.0 20	EBJQ5DL X108 Routine Sample Soil 10.0 20					
PES										
alpha-BHC	20	U	2.1	U	21	U	2.1	U	21	U
beta-BHC	20	U	2.1	UJ	21	U	2.1	U	21	U
delta-BHC	20	U	2.1	U	21	U	2.1	U	21	U
gamma-BHC (Lindane)	20	U	2.1	U	21	U	2.1	U	21	U
Heptachlor	20	U	2.1	U	21	U	2.2	J	21	U
Aldrin	20	U	2.1	U	21	U	2.1	U	21	U
Heptachlor epoxide	20	U	2.1	U	21	U	2.1	U	21	U
Endosulfan I	20	U	6.7	J	21	U	2.1	U	21	U
Dieldrin	39	U	9.1	J	11	J	4.1	U	41	U
4,4'-DDE	33	J	6.9	J	15	J	4.1	U	41	U
Endrin	39	U	30	J	43	J	4.1	U	41	U
Endosulfan II	39	U	42	J	59	J	4.1	U	41	U
4,4'-DDD	39	U	21	J	41	U	4.1	U	41	U
Endosulfan sulfate	39	U	4.1	UJ	41	U	4.1	U	41	U
4,4'-DDT	64	J	92	J	72	J	4.1	UJ	41	U
Methoxychlor	200	U	21	U	210	U	21	UJ	210	U
Endrin ketone	39	U	7.5	J	41	U	13	J	41	U
Endrin aldehyde	39	U	14	J	41	U	4.1	U	41	U
alpha-Chlordane	20	U	12	J	17	J	2.1	U	21	U
gamma-Chlordane	20	U	34	J	46	J	2.1	U	21	U
Toxaphene	2000	U	210	U	2100	U	210	U	2100	U
Aroclor-1016	390	U	41	U	410	U	41	U	410	U
Aroclor-1221	790	U	84	U	840	U	84	U	840	U
Aroclor-1232	390	U	41	U	410	U	41	U	410	U
Aroclor-1242	390	U	41	U	410	U	41	U	410	U
Aroclor-1248	390	U	41	U	410	U	41	U	410	U
Aroclor-1254	390	U	360	J	480	J	41	U	410	U
Aroclor-1260	390	U	41	U	410	U	41	U	410	U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINNERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ6 X109 Routine Sample Soil 1.0 22	EBJQ6DL X109 Routine Sample Soil 50.0 22	EBJQ7 X110 Routine Sample Soil 1.0 22	EBJQ7DL X110 Routine Sample Soil 50.0 22	EBJQ8 X111 Routine Sample Soil 1.0 3
PES					
alpha-BHC	2.2 U	110 U	2.2 U	110 U	52 UJ
beta-BHC	2.2 U	110 U	2.2 U	110 U	52 UJ
delta-BHC	2.2 U	110 U	2.2 U	110 U	52 UJ
gamma-BHC (Lindane)	4.3 J	110 U	2.6 J	110 U	52 UJ
Heptachlor	5.6 J	110 U	4.9 J	110 U	52 UJ
Aldrin	2.2 U	110 U	2.2 U	110 U	52 UJ
Heptachlor epoxide	7.7 J	110 U	2.5 J	110 U	52 UJ
Endosulfan I	5.8 J	110 U	3.5 J	110 U	52 UJ
Dieldrin	35 J	210 U	18 J	210 U	100 UJ
4,4'-DDE	180 J	170 J	120 J	120 J	100 UJ
Endrin	200 J	360 J	130 J	260 J	320 J
Endosulfan II	190 J	350 J	150 J	280 J	340 J
4,4'-DDD	74 J	210 U	61 J	210 U	100 UJ
Endosulfan sulfate	20 J	210 U	14 J	210 U	100 UJ
4,4'-DDT	2400 J	2700 J	1700 J	1900 J	850 J
Methoxychlor	180 J	840 J	180 J	1100 U	520 UJ
Endrin ketone	140 J	200 J	200 J	210 U	100 UJ
Endrin aldehyde	47 J	210 U	35 J	210 U	100 UJ
alpha-Chlordane	72 J	96 J	43 J	110 U	52 UJ
gamma-Chlordane	62 J	240 J	36 J	190 J	54 J
Toxaphene	220 U	11000 U	220 U	11000 U	5200 UJ
Aroclor-1016	42 U	2100 U	42 U	2100 U	1000 UJ
Aroclor-1221	86 U	4300 U	86 U	4300 U	2100 UJ
Aroclor-1232	42 U	2100 U	42 U	2100 U	1000 UJ
Aroclor-1242	42 U	2100 U	42 U	2100 U	1000 UJ
Aroclor-1248	42 U	2100 U	42 U	2100 U	1000 UJ
Aroclor-1254	42 U	2100 U	42 U	2100 U	1000 UJ
Aroclor-1260	42 U	2100 U	42 U	2100 U	1000 UJ

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Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR5MSD	SBLK1	SBLK2	SBLK3	SBLK4
	X103 Matrix Spike Dup Soil/Low 1.0 16	Method Blank Soil/Med 1.0 0	Method Blank Soil/Low 1.0 0	Method Blank Soil/Low 1.0 0	Method Blank Soil/Low 1.0 0
BNA					
Phenol	1800	10000	U 330	U 330	U 330
bis(2-Chloroethyl)ether	390	U 10000	U 330	U 330	U 330
2-Chlorophenol	1800	10000	U 330	U 330	U 330
1,3-Dichlorobenzene	390	U 10000	U 330	U 330	U 330
1,4-Dichlorobenzene	1200	10000	U 330	U 330	U 330
1,2-Dichlorobenzene	390	U 10000	U 330	U 330	U 330
2-Methylphenol	390	U 10000	U 330	U 330	U 330
2,2'-oxybis(1-Chloropropane)	390	U 10000	UJ 330	U 330	U 330
4-Methylphenol	390	U 10000	U 330	U 330	U 330
N-Nitroso-di-n-propylamine	1400	10000	UJ 330	U 330	U 330
Hexachloroethane	390	U 10000	U 330	U 330	U 330
Nitrobenzene	390	UJ 10000	UJ 330	UJ 330	U 330
Isophorone	390	U 10000	U 330	U 330	U 330
2-Nitrophenol	390	U 10000	U 330	U 330	U 330
2,4-Dimethylphenol	390	U 10000	U 330	U 330	U 330
bis(2-Chloroethoxy)methane	390	U 10000	U 330	U 330	U 330
2,4-Dichlorophenol	390	U 10000	U 330	U 330	U 330
1,2,4-Trichlorobenzene	1300	10000	U 330	U 330	U 330
Naphthalene	60	J 10000	U 330	U 330	U 330
4-Chloroaniline	390	U 10000	U 330	U 330	U 330
Hexachlorobutadiene	390	U 10000	U 330	U 330	U 330
4-Chloro-3-methylphenol	2000	10000	U 330	U 330	U 330
2-Methylnaphthalene	140	J 10000	U 330	U 330	U 330
Hexachlorocyclopentadiene	390	U 10000	UJ 330	U 330	UJ 330
2,4,6-Trichlorophenol	390	U 10000	U 330	U 330	U 330
2,4,5-Trichlorophenol	990	U 25000	U 830	U 830	U 830
1-Chloronaphthalene	390	U 10000	U 330	U 330	U 330
Nitroaniline	990	U 25000	UJ 830	U 830	U 830
Dimethylphthalate	390	U 10000	U 330	U 330	U 330
Acenaphthylene	390	U 10000	U 330	U 330	U 330
2,6-Dinitrotoluene	390	U 10000	U 330	U 330	U 330
3-Nitroaniline	990	U 25000	U 830	U 830	U 830
Acenaphthene	1400	10000	U 330	U 330	U 330
2,4-Dinitrophenol	990	U 25000	U 830	UJ 830	UJ 830
4-Nitrophenol	2700	25000	UJ 830	U 830	U 830
Dibenzofuran	39	J 10000	U 330	U 330	U 330
2,4-Dinitrotoluene	1500	10000	U 330	U 330	U 330
Diethylphthalate	390	U 10000	U 100	J 71	J 60
4-Chlorophenyl-phenylether	390	U 10000	U 330	U 330	U 330
Fluorene	390	U 10000	U 330	U 330	U 330
4-Nitroaniline	990	U 25000	U 830	U 830	U 830
4,6-Dinitro-2-methylphenol	990	U 25000	U 830	UJ 830	UJ 830
N-Nitrosodiphenylamine (1)	390	U 10000	U 330	U 330	U 330
4-Bromophenyl-phenylether	390	U 10000	U 330	U 330	U 330
Hexachlorobenzene	390	U 10000	U 330	U 330	U 330
Pentachlorophenol	1200	25000	U 830	U 830	U 830
Phenanthrene	250	J 10000	U 330	U 330	U 330
Anthracene	38	J 10000	U 330	U 330	U 330
Carbazole	20	J 10000	U 330	U 330	U 330
Di-n-butylphthalate	390	U 10000	U 330	U 330	U 20
Fluoranthene	370	J 10000	U 330	U 330	U 330
Pyrene	1700	10000	U 330	U 330	U 330
Butylbenzylphthalate	390	U 10000	U 330	U 330	U 330
3,3'-Dichlorobenzidine	390	U 10000	U 330	U 330	U 330
Benzo(a)anthracene	230	J 10000	U 330	U 330	U 330
Chrysene	330	J 10000	U 330	U 330	U 330
bis(2-Ethylhexyl)phthalate	390	U 10000	U 32	J 330	U 38
Di-n-octylphthalate	390	U 10000	U 330	U 330	UJ 330
Benzo(b)fluoranthene	710	10000	U 330	U 330	U 330
Benzo(k)fluoranthene	390	U 10000	U 330	U 330	U 330
Benzo(a)pyrene	290	J 10000	U 330	U 330	U 330
Indeno(1,2,3-cd)pyrene	290	J 10000	U 330	U 330	U 330
Benzo(a,h)anthracene	110	J 10000	U 330	U 330	U 330
Benzo(g,h,i)perylene	300	J 10000	U 330	U 330	U 330

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ1 X104 Routine Sample Soil 1.0 22	EBJQ1DL X104 Routine Sample Soil 10.0 22	EBJQ2 X105 Routine Sample Soil 1.0 22	EBJQ2DL X105 Routine Sample Soil 10.0 22	EBJQ3 X106 Routine Sample Soil 1.0 15
PES					
alpha-BHC	2.2 U	22 U	2.2 U	22 U	2.0 U
beta-BHC	2.2 U	22 U	2.2 U	22 U	2.0 U
delta-BHC	2.2 U	22 U	2.2 U	22 U	2.0 U
gamma-BHC (Lindane)	2.2 U	22 U	2.2 U	22 U	2.0 U
Heptachlor	2.2 U	22 U	2.2 U	22 U	2.0 U
Aldrin	2.2 U	22 U	2.2 U	22 U	2.0 U
Heptachlor epoxide	2.2 U	22 U	2.2 U	22 U	2.0 U
Endosulfan I	2.2 U	22 U	2.2 U	22 U	2.0 U
Dieldrin	4.2 U	42 U	4.2 U	42 U	3.9 U
4,4'-DDE	4.2 U	42 U	4.2 U	42 U	42 J
Endrin	4.2 U	42 U	4.2 U	42 U	3.9 U
Endosulfan II	4.2 U	42 U	7.8 J	42 U	3.9 U
4,4'-DDD	4.2 U	42 U	9.9 J	42 U	7.9 J
Endosulfan sulfate	4.2 U	42 U	4.2 U	42 U	3.9 U
4,4'-DDT	4.2 UJ	42 U	4.2 UJ	42 U	72 J
Methoxychlor	22 UJ	220 U	22 UJ	220 U	20 UJ
Endrin ketone	4.2 U	42 U	6.1 U	42 U	5.9 J
Endrin aldehyde	4.2 U	42 U	4.2 U	42 U	3.9 U
alpha-Chlordane	2.2 U	22 U	2.2 U	22 U	2.0 U
gamma-Chlordane	2.2 U	22 U	2.8 J	22 U	2.0 U
Toxaphene	220 U	2200 U	220 U	2200 U	200 U
Aroclor-1016	42 U	420 U	42 U	420 U	39 U
Aroclor-1221	86 U	860 U	86 U	860 U	79 U
Aroclor-1232	42 U	420 U	42 U	420 U	39 U
Aroclor-1242	42 U	420 U	42 U	420 U	39 U
Aroclor-1248	42 U	420 U	42 U	420 U	39 U
Aroclor-1254	42 U	420 U	42 U	420 U	39 U
Aroclor-1260	42 U	420 U	42 U	420 U	39 U

FILE NAME: EBJQ1 DATE: 10/24/97 TIME: 10:02 CADRE 2.3.1

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Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: FUNCTIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ8MSD X111 Matrix Spike Dup Soil/Med 5.0 3	EBJQ9 X112 Routine Sample Soil/Low 4.0 21	EBJQ9RE X112 Routine Sample Soil/Low 4.0 21	EBJR0 X113 Routine Sample Soil/Low 1.0 28	EBJR1 X114 Routine Sample Soil/Low 1.0 16
BNA					
Phenol	44000 J	1700 U	1700 UJ	460 U	390 U
bis(2-Chloroethyl)ether	52000 U	1700 U	1700 UJ	460 U	390 U
2-Chlorophenol	34000 J	1700 R	1700 UJ	460 U	390 U
1,3-Dichlorobenzene	52000 U	1700 U	1700 UJ	460 U	390 U
1,4-Dichlorobenzene	22000 J	1700 U	1700 UJ	460 U	390 U
1,2-Dichlorobenzene	52000 U	1700 U	1700 UJ	460 U	390 U
2-Methylphenol	52000 U	1700 R	1700 UJ	460 U	390 U
2,2'-oxybis(1-Chloropropane)	52000 UJ	1700 U	1700 UJ	460 U	390 U
4-Methylphenol	52000 U	1700 R	1700 UJ	460 U	390 U
N-Nitroso-di-n-propylamine	16000 J	1700 U	1700 UJ	460 U	390 U
Hexachloroethane	52000 U	1700 U	1700 UJ	460 U	390 U
Nitrobenzene	52000 UJ	1700 U	1700 UJ	460 UJ	390 UJ
Isophorone	52000 U	1700 U	1700 UJ	460 U	390 U
2-Nitrophenol	52000 U	1700 R	1700 UJ	460 U	390 U
2,4-Dimethylphenol	52000 U	1700 R	1700 UJ	460 U	390 U
bis(2-Chloroethoxy)methane	52000 U	1700 U	1700 UJ	460 U	390 U
2,4-Dichlorophenol	52000 U	1700 R	1700 UJ	460 U	390 U
1,2,4-Trichlorobenzene	24000 J	1700 U	1700 UJ	460 U	390 U
Naphthalene	52000 U	150 J	91 J	24 J	78 J
4-Chloroaniline	52000 U	1700 U	1700 UJ	460 U	390 U
Hexachlorobutadiene	52000 U	1700 U	1700 UJ	460 U	390 U
4-Chloro-3-methylphenol	42000 J	1700 R	1700 UJ	460 U	390 U
2-Methylnaphthalene	15000 J	110 J	160 J	23 J	74 J
Hexachlorocyclopentadiene	52000 UJ	1700 U	1700 UJ	460 U	390 U
2,4,6-Trichlorophenol	52000 U	1700 R	1700 UJ	460 U	390 U
4,5-Trichlorophenol	130000 U	4200 R	4200 UJ	1200 U	990 U
Chloronaphthalene	52000 U	1700 U	1700 UJ	460 U	390 U
2-Nitroaniline	130000 UJ	4200 U	4200 UJ	1200 U	990 U
Dimethylphthalate	52000 U	1700 U	1700 UJ	460 U	390 U
Acenaphthylene	52000 U	1700 U	1700 UJ	460 U	430 U
2,6-Dinitrotoluene	52000 U	1700 U	1700 UJ	460 U	390 U
3-Nitroaniline	130000 U	4200 U	4200 UJ	1200 U	990 U
Acenaphthene	30000 J	580 J	1000 J	73 J	260 J
2,4-Dinitrophenol	130000 U	4200 R	4200 UJ	1200 U	990 U
4-Nitrophenol	25000 J	4200 R	4200 UJ	1200 U	990 U
Dibenzofuran	4200 J	370 J	600 J	55 J	140 J
2,4-Dinitrotoluene	22000 J	1700 U	1700 UJ	460 U	390 U
Diethylphthalate	52000 U	1700 U	1700 UJ	460 U	390 U
4-Chlorophenyl-phenylether	52000 U	1700 U	1700 UJ	460 U	390 U
Fluorene	6800 J	640 J	1400 J	98 J	270 J
4-Nitroaniline	130000 U	4200 U	4200 UJ	140 J	990 U
4,6-Dinitro-2-methylphenol	130000 U	4200 R	4200 UJ	1200 U	990 U
N-Nitrosodiphenylamine (1)	52000 U	1700 U	1700 UJ	460 U	390 U
4-Bromophenyl-phenylether	52000 U	1700 U	1700 UJ	460 U	390 U
Hexachlorobenzene	52000 U	1700 U	1700 UJ	460 U	390 U
Pentachlorophenol	2500 J	4200 R	4200 UJ	1200 U	990 U
Phenanthrene	29000 J	7800 J	12000 J	1200 U	3400 U
Anthracene	4800 J	1400 J	3500 J	220 J	790 J
Carbazole	52000 U	910 J	700 J	220 J	530 J
Di-n-butylphthalate	52000 U	1700 U	1700 UJ	81 J	390 U
Fluoranthene	25000 J	12000 J	19000 J	2600 J	6400 U
Pyrene	46000 J	8900 J	12000 J	1800 J	4200 U
Butylbenzylphthalate	52000 U	1700 U	1700 UJ	460 U	390 U
3,3'-Dichlorobenzidine	52000 U	1700 U	1700 UJ	460 U	390 U
Benzo(a)anthracene	7000 J	4100 J	6800 J	920 J	3200 U
Chrysene	9200 J	4500 J	6800 J	1300 J	3500 U
bis(2-Ethylhexyl)phthalate	52000 U	86 J	1700 U	650 U	1500 U
Di-n-octylphthalate	52000 U	1700 U	1700 UJ	460 U	29 J
Benzo(b)fluoranthene	52000 U	3600 U	4800 J	1600 J	5600 U
Benzo(k)fluoranthene	52000 U	3100 U	4500 J	820 J	1600 U
Benzo(a)pyrene	6400 J	2900 J	5000 J	920 J	3200 U
Indeno(1,2,3-cd)pyrene	52000 U	2100 U	2400 J	800 J	2700 U
Dibenz(a,h)anthracene	52000 U	750 J	950 J	280 J	980 U
Benzo(g,h,i)perylene	5500 J	2100 J	2400 J	730 J	2500 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR1DL X114 Routine Sample Soil/Low 4.0 16	EBJR3 X101 Routine Sample Soil/Low 1.0 21	EBJR4 X102 Routine Sample Soil/Low 1.0 12	EBJR5 X103 Routine Sample Soil/Low 1.0 16	EBJR5MS X103 Matrix Spike Soil/Low 1.0 16
BNA					
Phenol	1600	U 420	U 380	U 390	U 1800
bis(2-Chloroethyl)ether	1600	U 420	U 380	U 390	U 390
2-Chlorophenol	1600	U 420	U 380	U 390	U 1700
1,3-Dichlorobenzene	1600	U 420	U 380	U 390	U 390
1,4-Dichlorobenzene	1600	U 420	U 380	U 390	U 1200
1,2-Dichlorobenzene	1600	U 420	U 380	U 390	U 390
2-Methylphenol	1600	U 420	U 380	U 390	U 390
2,2'-oxybis(1-Chloropropane)	1600	U 420	U 380	U 390	U 390
4-Methylphenol	1600	U 420	U 380	U 390	U 390
N-Nitroso-di-n-propylamine	1600	U 420	U 380	U 390	U 1300
Hexachloroethane	1600	U 420	U 380	U 390	U 390
Nitrobenzene	1600	U 420	UJ 380	UJ 390	UJ 390
Isophorone	1600	U 420	U 380	U 390	U 390
2-Nitrophenol	1600	U 420	U 380	U 390	U 390
2,4-Dimethylphenol	1600	U 420	U 380	U 390	U 390
bis(2-Chloroethoxy)methane	1600	U 420	U 380	U 390	U 390
2,4-Dichlorophenol	1600	U 420	U 380	U 390	U 390
1,2,4-Trichlorobenzene	1600	U 420	U 380	U 390	U 1300
Naphthalene	1600	U 420	U 380	U 74	J 51
4-Chloroaniline	1600	U 420	U 380	U 390	U 390
Hexachlorobutadiene	1600	U 420	U 380	U 390	U 390
4-Chloro-3-methylphenol	1600	U 420	U 380	U 390	U 1900
2-Methylnaphthalene	1600	U 420	U 68	J 200	J 97
Hexachlorocyclopentadiene	1600	U 420	U 380	U 390	U 390
2,4,6-Trichlorophenol	1600	U 420	U 380	U 390	U 390
2,4,5-Trichlorophenol	4000	U 1000	U 940	U 990	U 990
2-Chloronaphthalene	1600	U 420	U 380	U 390	U 390
2-Nitroaniline	4000	U 1000	U 940	U 990	U 990
Dimethylphthalate	1600	U 420	U 380	U 390	U 390
Acenaphthylene	230	J 420	U 380	U 390	U 390
2,6-Dinitrotoluene	1600	U 420	U 380	U 390	U 390
3-Nitroaniline	4000	U 1000	U 940	U 990	U 990
Acenaphthene	190	J 420	U 380	U 390	U 1300
2,4-Dinitrophenol	4000	UJ 1000	U 940	U 990	U 990
4-Nitrophenol	4000	U 1000	U 940	U 990	U 2400
Dibenzofuran	110	J 420	U 380	U 52	J 27
2,4-Dinitrotoluene	1600	U 420	U 380	U 390	U 1400
Diethylphthalate	1600	U 420	U 380	U 390	U 390
4-Chlorophenyl-phenylether	1600	U 420	U 380	U 390	U 390
Fluorene	180	J 420	U 380	U 390	U 390
4-Nitroaniline	4000	U 1000	U 940	U 990	U 990
4,6-Dinitro-2-methylphenol	4000	UJ 1000	U 940	U 990	U 990
N-Nitrosodiphenylamine (1)	1600	U 420	U 380	U 390	U 390
4-Bromophenyl-phenylether	1600	U 420	U 380	U 390	U 390
Hexachlorobenzene	1600	U 420	U 380	U 390	U 390
Pentachlorophenol	4000	U 1000	U 940	U 990	U 1200
Phenanthrene	3200	61	J 70	J 520	J 250
Anthracene	500	J 420	U 380	U 96	J 45
Carbazole	350	J 420	U 380	U 56	J 23
Di-n-butylphthalate	1600	U 29	J 23	J 31	J 29
Fluoranthene	7600	160	J 29	J 1000	460
Pyrene	6300	100	J 26	J 670	1500
Butylbenzylphthalate	1600	U 420	U 380	U 390	U 390
3,3'-Dichlorobenzidine	1600	U 420	U 380	U 390	U 390
Benzo(a)anthracene	2900	65	J 380	U 540	J 280
Chrysene	3900	85	J 30	J 600	J 360
bis(2-Ethylhexyl)phthalate	1100	J 420	U 380	U 390	U 390
Di-n-octylphthalate	1600	U 420	U 380	U 390	U 390
Benzo(b)fluoranthene	3300	200	J 380	U 820	740
Benzo(k)fluoranthene	2800	420	U 380	U 490	390
Benzo(a)pyrene	3000	420	U 380	U 610	340
Indeno(1,2,3-cd)pyrene	2000	82	J 380	U 500	310
Dibenz(a,h)anthracene	720	J 30	J 380	U 190	J 120
Benzo(g,h,i)perylene	2200	91	J 32	J 490	J 330

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: FUNCTIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ1	EBJQ2	EBJQ2DL	EBJQ3	EBJQ4
	X104 Routine Sample Soil/Low 1.0 22	X105 Routine Sample Soil/Low 1.0 22	X105 Routine Sample Soil/Low 4.0 22	X106 Routine Sample Soil/Low 1.0 15	X107 Routine Sample Soil/Low 1.0 20
BNA					
Phenol	420 U	420 U	1700 U	390 U	410 U
bis(2-Chloroethyl)ether	420 U	420 U	1700 U	390 U	410 U
2-Chlorophenol	420 U	420 U	1700 U	390 U	410 U
1,3-Dichlorobenzene	420 U	420 U	1700 U	390 U	410 U
1,4-Dichlorobenzene	420 U	420 U	1700 U	390 U	410 U
1,2-Dichlorobenzene	420 U	420 U	1700 U	390 U	410 U
2-Methylphenol	420 U	420 U	1700 U	390 U	410 U
2,2'-oxybis(1-Chloropropane)	420 U	420 U	1700 U	390 U	410 U
4-Methylphenol	420 U	420 U	1700 U	390 U	410 U
N-Nitroso-d1-n-propylamine	420 U	420 U	1700 U	390 U	410 U
Hexachloroethane	420 U	420 U	1700 U	390 U	410 U
Nitrobenzene	420 UJ	420 UJ	1700 U	390 UJ	410 UJ
Isophorone	420 U	420 U	1700 U	390 U	410 U
2-Nitrophenol	420 U	420 U	1700 U	390 U	410 U
2,4-Dimethylphenol	420 U	420 U	1700 U	390 U	410 U
bis(2-Chloroethoxy)methane	420 U	420 U	1700 U	390 U	410 U
2,4-Dichlorophenol	420 U	420 U	1700 U	390 U	410 U
1,2,4-Trichlorobenzene	420 U	420 U	1700 U	390 U	410 U
Naphthalene	420 U	960 U	760 J	51 J	410 U
4-Chloroaniline	420 U	420 U	1700 U	390 U	410 U
Hexachlorobutadiene	420 U	420 U	1700 U	390 U	410 U
4-Chloro-3-methylphenol	420 U	420 U	1700 U	390 U	410 U
2-Methylnaphthalene	420 U	440 U	330 J	38 J	410 U
Hexachlorocyclopentadiene	420 U	420 U	1700 U	390 U	410 U
2,4,6-Trichlorophenol	420 U	420 U	1700 U	390 U	410 U
4,5-Trichlorophenol	1100 U	1100 U	4200 U	980 U	1000 U
1-Chloronaphthalene	420 U	420 U	1700 U	390 U	410 U
2-Nitroaniline	1100 U	1100 U	4200 U	980 U	1000 U
Dimethylphthalate	420 U	420 U	1700 U	390 U	410 U
Acenaphthylene	420 U	24 J	1700 U	32 J	32 J
2,6-Dinitrotoluene	420 U	420 U	1700 U	390 U	410 U
3-Nitroaniline	1100 U	1100 U	4200 U	980 U	1000 U
Acenaphthene	420 U	1300 U	960 J	99 J	410 U
2,4-Dinitrophenol	1100 UJ	1100 UJ	4200 UJ	980 UJ	1000 UJ
4-Nitrophenol	1100 U	1100 U	4200 U	980 U	1000 U
Dibenzofuran	420 U	760 U	510 J	58 J	410 U
2,4-Dinitrotoluene	420 U	420 U	1700 U	390 U	410 U
Diethylphthalate	420 U	420 U	1700 U	390 U	410 U
4-Chlorophenyl-phenylether	420 U	420 U	1700 U	390 U	410 U
Fluorene	420 U	1600 U	1200 J	130 J	410 U
4-Nitroaniline	1100 U	1100 U	4200 U	980 U	1000 U
4,6-Dinitro-2-methylphenol	1100 UJ	1100 UJ	4200 UJ	980 UJ	1000 UJ
N-Nitrosodiphenylamine (1)	420 U	420 U	1700 U	390 U	410 U
4-Bromophenyl-phenylether	420 U	420 U	1700 U	390 U	410 U
Hexachlorobenzene	420 U	420 U	1700 U	390 U	410 U
Pentachlorophenol	1100 U	1100 U	4200 U	980 U	1000 U
Phenanthrene	180 J	7600 U	12000 U	1200 J	110 J
Anthracene	34 J	2500 U	2200 U	320 J	29 J
Carbazole	29 J	1800 U	1400 J	150 J	24 J
Di-n-butylphthalate	120 J	420 U	1700 U	59 J	190 J
Fluoranthene	370 J	6500 U	14000 U	1900 J	210 J
Pyrene	250 J	7600 U	10000 U	1400 J	150 J
Butylbenzylphthalate	420 U	420 U	1700 U	390 U	410 U
3,3'-Dichlorobenzidine	420 U	420 U	1700 U	390 U	410 U
Benzo(a)anthracene	120 J	4900 U	4000 U	890 J	84 J
Chrysene	170 J	4900 U	4900 U	920 J	120 J
bis(2-Ethylhexyl)phthalate	420 U	420 U	1700 U	390 U	410 U
Di-n-octylphthalate	420 U	420 U	1700 U	390 U	410 U
Benzo(b)fluoranthene	98 J	5600 U	4000 U	1000 J	150 J
Benzo(k)fluoranthene	170 J	420 U	2700 U	390 U	410 U
Benzo(a)pyrene	140 J	4400 U	3600 U	800 J	110 J
Indeno(1,2,3-cd)pyrene	110 J	3100 U	2200 U	450 J	98 J
Dibenz(a,h)anthracene	42 J	1500 U	780 J	210 J	34 J
Benzo(g,h,i)perylene	120 J	2900 U	2500 U	420 J	140 J

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ5 X108 Routine Sample Soil/Low 1.0 20	EBJQ6 X109 Routine Sample Soil/Low 10.0 22	EBJQ7 X110 Routine Sample Soil/Low 10.0 22	EBJQ8 X111 Routine Sample Soil/Med 5.0 3	EBJQ8MS X111 Matrix Spike Soil/Med 5.0 3
BNA					
Phenol	410 U	4200 U	4200 U	52000 U	36000 J
bis(2-Chloroethyl)ether	410 U	4200 U	4200 U	52000 U	52000 U
2-Chlorophenol	410 U	4200 U	4200 U	52000 U	33000 J
1,3-Dichlorobenzene	410 U	4200 U	4200 U	52000 U	52000 U
1,4-Dichlorobenzene	410 U	4200 U	4200 U	52000 U	20000 J
1,2-Dichlorobenzene	410 U	4200 U	4200 U	52000 U	52000 U
2-Methylphenol	410 U	4200 U	4200 U	52000 U	52000 U
2,2'-oxybis(1-Chloropropane)	410 U	4200 U	4200 U	52000 UJ	52000 UJ
4-Methylphenol	410 U	4200 U	4200 U	52000 U	52000 U
N-Nitroso-di-n-propylamine	410 U	4200 U	4200 U	52000 UJ	12000 J
Hexachloroethane	410 U	4200 U	4200 U	52000 U	52000 U
Nitrobenzene	410 UJ	4200 UJ	4200 U	52000 UJ	52000 UJ
Isophorone	410 U	4200 U	4200 U	52000 U	52000 U
2-Nitrophenol	410 U	4200 U	4200 U	52000 U	52000 U
2,4-Dimethylphenol	410 U	4200 U	4200 U	52000 U	52000 U
bis(2-Chloroethoxy)methane	410 U	4200 U	4200 U	52000 U	52000 U
2,4-Dichlorophenol	410 U	4200 U	4200 U	52000 U	52000 U
1,2,4-Trichlorobenzene	410 U	4200 U	4200 U	52000 U	23000 J
Naphthalene	500 U	280 J	390 J	52000 U	52000 U
4-Chloroaniline	410 U	4200 U	4200 U	52000 U	52000 U
Hexachlorobutadiene	410 U	4200 U	4200 U	52000 U	52000 U
4-Chloro-3-methylphenol	410 U	4200 U	4200 U	52000 U	47000 J
2-Methylnaphthalene	1100 U	4200 U	4200 U	11000 J	23000 J
Hexachlorocyclopentadiene	410 U	4200 U	4200 U	52000 UJ	52000 UJ
2,4,6-Trichlorophenol	410 U	4200 U	4200 U	52000 U	52000 U
2,4,5-Trichlorophenol	1000 U	11000 U	11000 U	130000 U	130000 U
2-Chloronaphthalene	410 U	4200 U	4200 U	52000 U	52000 U
2-Nitroaniline	1000 U	11000 U	11000 U	130000 UJ	130000 UJ
Dimethylphthalate	410 U	4200 U	4200 U	52000 U	52000 U
Acenaphthylene	410 U	580 J	480 J	52000 U	52000 U
2,6-Dinitrotoluene	410 U	4200 U	4200 U	52000 U	52000 U
3-Nitroaniline	1000 U	11000 U	11000 U	130000 U	130000 U
Acenaphthene	40 J	870 J	960 J	4900 J	35000 J
2,4-Dinitrophenol	1000 UJ	11000 UJ	11000 U	130000 U	130000 U
4-Nitrophenol	1000 U	11000 U	11000 U	130000 UJ	35000 J
Dibenzofuran	63 J	550 J	560 J	4200 J	6800 J
2,4-Dinitrotoluene	410 U	4200 U	4200 U	52000 U	27000 J
Diethylphthalate	410 U	4200 U	4200 U	52000 U	52000 U
4-Chlorophenyl-phenylether	410 U	4200 U	4200 U	52000 U	52000 U
Fluorene	96 J	970 J	890 J	5600 J	8800 J
4-Nitroaniline	1000 U	11000 U	11000 U	130000 U	130000 U
4,6-Dinitro-2-methylphenol	1000 UJ	11000 UJ	11000 U	130000 UJ	130000 U
N-Nitrosodiphenylamine (1)	410 U	4200 U	4200 U	52000 U	52000 U
4-Bromophenyl-phenylether	410 U	4200 U	4200 U	52000 U	52000 U
Hexachlorobenzene	410 U	4200 U	4200 U	52000 U	52000 U
Pentachlorophenol	1000 U	11000 U	11000 U	130000 R	4500 J
Phenanthrene	250 J	10000 J	12000 J	31000 J	37000 J
Anthracene	410 U	1900 J	2600 J	4400 J	6800 J
Carbazole	410 U	1500 J	1500 J	52000 U	52000 U
Di-n-butylphthalate	130 J	4200 U	4200 U	52000 U	52000 U
Fluoranthene	150 J	19000 J	25000 J	26000 J	30000 J
Pyrene	150 J	13000 J	22000 J	17000 J	53000 J
Butylbenzylphthalate	410 U	4200 U	4200 U	52000 U	52000 U
3,3'-Dichlorobenzidine	410 U	4200 U	4200 U	52000 U	52000 U
Benzo(a)anthracene	61 J	8300 J	12000 J	5800 J	8400 J
Chrysene	160 J	10000 J	13000 J	8500 J	10000 J
bis(2-Ethylhexyl)phthalate	410 U	7000 U	3900 J	52000 U	52000 U
Di-n-octylphthalate	410 U	4200 U	4200 U	52000 U	52000 U
Benzo(b)fluoranthene	410 U	7900 J	10000 J	5100 J	5900 J
Benzo(k)fluoranthene	410 U	8400 J	12000 J	4800 J	6500 J
Benzo(a)pyrene	72 J	8300 J	12000 J	52000 U	8000 J
Indeno(1,2,3-cd)pyrene	94 J	7200 J	7000 J	52000 U	52000 U
Dibenz(a,h)anthracene	42 J	2500 J	2700 J	52000 U	52000 U
Benzo(g,h,i)perylene	120 J	7200 J	8100 J	52000 U	52000 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINNERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	VBLK5 Method Blank Water/Low 1.0	VHBLK1 Storage Blank Water/Low 1.0			
VOA					
Chloromethane	10	UJ	10	UJ	
Bromomethane	10	U	10	U	
Vinyl Chloride	10	UJ	10	UJ	
Chloroethane	10	U	10	U	
Methylene Chloride	10	U	10	U	
Acetone	10	U	10	U	
Carbon Disulfide	10	U	10	U	
1,1-Dichloroethene	10	U	10	U	
1,1-Dichloroethane	10	U	10	U	
1,2-Dichloroethene (total)	10	U	10	U	
Chloroform	10	U	10	U	
1,2-Dichloroethane	10	U	10	U	
2-Butanone	10	UJ	10	UJ	
1,1,1-Trichloroethane	10	U	10	U	
Carbon Tetrachloride	10	U	10	U	
Bromodichloromethane	10	U	10	U	
1,2-Dichloropropane	10	U	10	U	
cis-1,3-Dichloropropene	10	U	10	U	
Trichloroethene	10	UJ	10	UJ	
Dibromochloromethane	10	U	10	U	
1,1,2-Trichloroethane	10	U	10	U	
Benzene	10	U	10	U	
trans-1,3-Dichloropropene	10	U	10	U	
Bromoform	10	U	10	U	
4-Methyl-2-Pentanone	10	UJ	10	UJ	
2-Hexanone	10	UJ	10	UJ	
Tetrachloroethene	10	U	10	U	
1,1,2,2-Tetrachloroethane	10	U	10	U	
Toluene	10	U	10	U	
Chlorobenzene	10	U	10	U	
Ethylbenzene	10	U	10	U	
Styrene	10	U	10	U	
Xylene (total)	10	U	10	U	

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINNERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR5MSD	VBLK1	VBLK2	VBLK3	VBLK4
	X103 Matrix Spike Dup Soil/Low 1.0 16	Method Blank Soil/Low 1.0 0	Method Blank Soil/Low 1.0 0	Method Blank Soil/Low 1.0 0	Method Blank Soil/Low 1.0 0
VOA					
Chloromethane	12 U	10 U	10 U	10 U	10 U
Bromomethane	12 U	10 U	10 U	10 U	10 U
Vinyl Chloride	12 U	10 U	10 U	10 U	10 U
Chloroethane	12 U	10 U	10 U	10 U	10 U
Methylene Chloride	17 UJ	1 J	10 U	2 J	1 J
Acetone	4 J	1 J	10 U	10 UJ	10 UJ
Carbon Disulfide	12 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	36 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	12 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total)	78 U	10 U	10 U	10 U	10 U
Chloroform	12 U	1 J	1 J	2 J	2 J
1,2-Dichloroethane	12 U	10 U	10 U	10 U	10 U
2-Butanone	12 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	12 UJ	10 U	10 U	10 UJ	10 UJ
Carbon Tetrachloride	12 U	10 U	10 U	10 U	10 U
Bromodichloromethane	12 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	12 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	12 U	10 U	10 U	10 U	10 U
Trichloroethene	530 U	10 U	10 U	10 U	10 U
Dibromochloromethane	12 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	12 U	10 U	10 U	10 U	10 U
Benzene	51 U	10 U	10 U	10 U	10 U
trans-1,3-Dichloropropene	12 U	10 U	10 U	10 U	10 U
Bromoform	12 U	10 U	10 U	10 U	10 U
4-Methyl-2-Pentanone	12 UJ	10 U	10 U	10 UJ	10 UJ
2-Hexanone	12 U	10 U	10 U	10 U	10 U
Tetrachloroethene	10 J	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	12 U	10 U	10 U	10 U	10 UJ
Toluene	51 U	10 U	10 U	10 U	10 U
Chlorobenzene	50 U	10 U	10 U	10 U	10 U
Ethylbenzene	12 U	10 U	10 U	10 U	10 U
Styrene	12 U	10 U	10 U	10 U	10 U
Xylene (total)	12 U	10 U	10 U	10 U	10 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINNERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJR3 X101 Routine Sample Soil/Low 1.0 21	EBJR4 X102 Routine Sample Soil/Low 1.0 12	EBJR5 X103 Routine Sample Soil/Low 1.0 16	EBJR5DL X103 Routine Sample Soil/Low 1.0 16	EBJR5MS X103 Matrix Spike Soil/Low 1.0 16
VOA					
Chloromethane	13 U	11 U	12 U	120 U	12 U
Bromomethane	13 U	11 U	12 U	120 U	12 U
Vinyl Chloride	13 U	11 U	12 U	120 U	12 U
Chloroethane	13 U	11 U	12 U	120 U	12 U
Methylene Chloride	14 UJ	11 UJ	16 UJ	120 UJ	22 UJ
Acetone	7 J	11 UJ	2 J	120 UJ	11 J
Carbon Disulfide	13 U	11 U	12 U	120 U	12 U
1,1-Dichloroethene	13 U	11 U	12 UJ	120 U	35 U
1,1-Dichloroethane	13 U	7 J	12 U	120 U	12 U
1,2-Dichloroethene (total)	13 U	120 U	220 U	190 U	350 U
Chloroform	13 U	11 U	12 U	120 U	12 U
1,2-Dichloroethane	13 U	11 U	12 U	120 U	12 U
2-Butanone	13 U	11 U	12 U	120 U	12 U
1,1,1-Trichloroethane	13 UJ	1 J	2 J	120 UJ	3 J
Carbon Tetrachloride	13 U	11 U	12 U	120 U	12 U
Bromodichloromethane	13 U	11 U	12 U	120 U	12 U
1,2-Dichloropropane	13 U	11 U	12 U	120 U	12 U
cis-1,3-Dichloropropene	13 U	11 U	12 U	120 U	12 U
Trichloroethene	13 U	4 J	2100 J	1200 J	3300 J
Dibromochloromethane	13 U	11 U	12 U	120 U	12 U
1,1,2-Trichloroethane	13 U	11 U	12 U	120 U	12 U
Benzene	13 U	11 U	12 U	120 U	45 U
trans-1,3-Dichloropropene	13 U	11 U	12 U	120 U	12 U
Bromoform	13 U	11 U	12 U	120 U	12 U
4-Methyl-2-Pentanone	13 UJ	11 UJ	12 UJ	120 UJ	12 UJ
2-Hexanone	13 U	11 U	12 U	120 U	12 UJ
1,1,1-Trichloroethene	13 U	11 U	48 U	20 J	88 J
1,1,2,2-Tetrachloroethane	13 U	11 U	12 U	120 UJ	12 UJ
Toluene	13 U	11 U	12 U	120 U	46 J
Chlorobenzene	13 U	11 U	12 U	120 U	40 J
Ethylbenzene	13 U	11 U	12 U	120 U	12 UJ
Styrene	13 U	11 U	12 U	120 U	12 UJ
Xylene (total)	13 U	11 U	12 U	120 U	12 UJ

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ6 X109 Routine Sample Soil/Low 1.0 22	EBJQ7 X110 Routine Sample Soil/Low 1.0 22	EBJQ9 X112 Routine Sample Soil/Low 1.0 21	EBJR0 X113 Routine Sample Soil/Low 1.0 28	EBJR1 X114 Routine Sample Soil/Low 1.0 16
VOA					
Chloromethane	13 U	13 U	13 U	14 U	12 U
Bromomethane	13 U	13 U	13 U	14 U	12 U
Vinyl Chloride	13 U	13 U	13 U	14 U	12 U
Chloroethane	13 U	13 U	13 U	14 UJ	12 UJ
Methylene Chloride	13 UJ	13 U	17 UJ	3 J	8 J
Acetone	13 UJ	13 UJ	10 J	13 J	12 U
Carbon Disulfide	13 U	13 U	13 U	14 U	12 U
1,1-Dichloroethene	13 U	13 U	13 U	14 U	12 U
1,1-Dichloroethane	13 U	13 U	13 U	14 U	12 U
1,2-Dichloroethene (total)	2 J	13 U	13 U	14 U	12 U
Chloroform	13 U	13 U	13 U	14 U	12 U
1,2-Dichloroethane	13 U	13 U	13 U	14 U	12 U
2-Butanone	13 U	13 U	13 U	14 U	12 U
1,1,1-Trichloroethane	13 UJ	13 UJ	13 UJ	14 U	12 U
Carbon Tetrachloride	13 U	13 U	13 U	14 U	12 U
Bromodichloromethane	13 U	13 U	13 U	14 U	12 U
1,2-Dichloropropane	13 U	13 U	13 U	14 U	12 U
cis-1,3-Dichloropropene	13 U	13 U	13 U	14 U	12 U
Trichloroethene	20 U	74 U	13 U	14 U	2 J
Dibromochloromethane	13 U	13 U	13 U	14 U	12 U
1,1,2-Trichloroethane	13 U	13 U	13 U	14 U	12 U
Benzene	13 U	13 U	13 U	14 U	12 U
trans-1,3-Dichloropropene	13 U	13 U	13 U	14 U	12 U
Bromoform	13 U	13 U	13 U	14 U	12 U
4-Methyl-2-Pentanone	13 UJ	13 UJ	13 UJ	14 U	12 U
2-Hexanone	13 U	13 U	13 U	14 U	12 U
Tetrachloroethene	13 U	13 U	13 U	14 U	12 U
1,1,2,2-Tetrachloroethane	13 U	13 UJ	13 U	14 U	12 U
Toluene	13 U	13 U	13 U	14 U	12 U
Chlorobenzene	13 U	13 U	13 U	14 U	12 U
Ethylbenzene	13 U	13 U	13 U	14 U	12 U
Styrene	13 U	13 U	13 U	14 U	12 U
Xylene (total)	13 U	13 U	13 U	14 U	12 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

FILE NAME: EBJQ1 DATE: 10/24/97 TIME: 10:02

CRITERIA FILE: REG5094

DATA

Original Qualified

QUALIFICATIONS PERFORMED

<input checked="" type="checkbox"/> Quantitation Limit	<input type="checkbox"/>	CRDL Standards
<input checked="" type="checkbox"/> Percent Moisture	<input type="checkbox"/>	ICS
<input checked="" type="checkbox"/> Holding Time	<input type="checkbox"/>	LCS
<input checked="" type="checkbox"/> Calibrations	<input type="checkbox"/>	Duplicates
<input checked="" type="checkbox"/> Matrix Spikes	<input type="checkbox"/>	Furnace AA QC
<input checked="" type="checkbox"/> IPC	<input type="checkbox"/>	ICP Serial Dilutions
<input checked="" type="checkbox"/> Internal Standards	<input type="checkbox"/>	Sample Results Verification
<input checked="" type="checkbox"/> SMC/Surrogates	<input checked="" type="checkbox"/>	Laboratory Blanks
<input checked="" type="checkbox"/> System Performance	<input type="checkbox"/>	Field QC
<input checked="" type="checkbox"/> Sample Cleanup	<input type="checkbox"/>	

PRINT NON-DETECTS

Yes No

PRINT REJECTED RESULTS

Yes No

TCL QUALIFIED SPREADSHEET

Case No: 25625
SDG No: EBJQ1

Site: MARVEL ENGINEERING (IL)
Laboratory: SOUTHWEST LABS OF OKLAHOM

EPA SAMPLE NUMBER: REGIONAL SAMPLE NUMBER: SAMPLE LOCATION: SAMPLE TYPE: MATRIX/ANALYSIS: DILUTION FACTOR: PERCENT MOISTURE:	EBJQ1 X104 Routine Sample Soil/Low 1.0 22	EBJQ2 X105 Routine Sample Soil/Low 1.0 22	EBJQ3 X106 Routine Sample Soil/Low 1.0 15	EBJQ4 X107 Routine Sample Soil/Low 1.0 20	EBJQ5 X108 Routine Sample Soil/Low 1.0 20
VOA					
Chloromethane	13 U	13 U	12 U	12 U	12 U
Bromomethane	13 U	13 U	12 U	12 U	12 U
Vinyl Chloride	13 U	13 U	12 U	12 U	12 U
Chloroethane	13 U	13 UJ	12 UJ	12 U	12 U
Methylene Chloride	13 U	5 J	2 J	22 J	22 UJ
Acetone	19	13 U	12 U	12 U	24 J
Carbon Disulfide	13 U	13 U	12 U	12 U	12 U
1,1-Dichloroethene	13 U	13 U	12 U	12 U	12 U
1,1-Dichloroethane	13 U	13 U	12 U	12 U	4 J
1,2-Dichloroethene (total)	4 J	13 U	12 U	12 U	12 U
Chloroform	13 U	13 U	12 U	12 U	12 U
1,2-Dichloroethane	13 U	13 U	12 U	12 U	12 U
2-Butanone	13 U	13 U	12 U	12 U	12 U
1,1,1-Trichloroethane	13 U	13 U	12 U	12 U	1 J
Carbon Tetrachloride	13 U	13 U	12 U	12 U	12 U
Bromodichloromethane	13 U	13 U	12 U	12 U	12 U
1,2-Dichloropropane	13 U	13 U	12 U	12 U	12 U
cis-1,3-Dichloropropene	13 U	13 U	12 U	12 U	12 U
Trichloroethene	13 U	13 U	12 U	12 U	12 U
Dibromochloromethane	13 U	13 U	12 U	12 U	12 U
1,1,2-Trichloroethane	13 U	13 U	12 U	12 U	12 U
Benzene	13 U	3 J	12 U	12 U	12 U
trans-1,3-Dichloropropene	13 U	13 U	12 U	12 U	12 U
Bromoform	13 U	13 U	12 U	12 U	12 U
4-Methyl-2-Pentanone	13 U	13 U	12 U	12 U	12 UJ
2-Hexanone	13 U	13 U	12 U	12 U	12 U
Tetrachloroethene	13 U	13 U	12 U	12 U	5 J
1,1,2,2-Tetrachloroethane	13 U	13 U	12 U	12 U	12 U
Toluene	13 U	10 J	12 U	12 U	12 U
Chlorobenzene	13 U	13 U	12 U	12 U	12 U
Ethylbenzene	13 U	5 J	12 U	12 U	12 U
Styrene	13 U	13 U	12 U	12 U	12 U
Xylene (total)	13 U	6 J	12 U	12 U	12 U

Water units are reported in ug/L.
Soil units are reported in ug/Kg.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: October 24, 1997

SUBJECT: Review of Data
Received for Review on October 7, 1997

FROM: Stephen L. Ostrodka, Chief (SRT-4J)
Superfund Technical Support Section *per Steve Ostrodka*
Richard J. Byrnie
10/29/97

TO: Data User: IEPA

We have reviewed the data for the following case:

SITE NAME: Marvel Engineering (IL)

CASE NUMBER: 25625 SDG NUMBER: EBJQ1

Number and Type of Samples: 14 soil samples

Sample Numbers: EBJQ1-EBJQ9, EBJR0, EBJR1, EBJR3-EBJR5

Laboratory: SWOK Hrs. for Review: 14 hrs 1.5 *W. J.*

Following are our findings:

The data is acceptable and usable with the qualifications described in the attached narrative.
Richard J. Byrnie

RECEIVED
NOV 03 1997
IEPA/BOL

Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

Case Number : 25625
Site Name: Marvel Engineering (IL)

SDG Number: EBJQ1
Laboratory: SWOK

Below is a summary of the out-of-control audits and the possible effects on the data for this case:

Fourteen soil samples, numbered EBJQ1-EBJQ9, EBJR0, EBJR1, EBJR3-EBJR5, were collected on 08/12-13/97. The lab received the samples on 08/15/97 in good condition. All samples were analyzed for the full list of organic analytes. All were analyzed according to CLP SOW OLMO3.1 3/90.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: October 24, 1997

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 Site Name: Marvel Engineering (IL)

SDG Number: EBJQ1
 Laboratory: SWOK

HOLDING TIME

The following semivolatile soil samples are outside primary extraction holding time criteria. Hits are qualified "J" and non-detects are qualified "UJ".

EBJQ9RE

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems were found for this qualification.

3. CALIBRATION

The following volatile samples are associated with a continuing calibration whose corresponding initial calibration has percent relative standard deviation (%RSD) outside primary criteria. Hits are qualified "J" and non-detects are flagged "UJ".

Chloromethane
 VBLK5, VHBLK1

The following volatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

Chloromethane, Vinyl Chloride, 2-Butanone, 2-Hexanone,
 Trichloroethene
 VBLK5, VHBLK1

Chloroethane
 EBJQ2, EBJQ3, EBJR0, EBJR1, VBLK2

Methylene Chloride
 EBJQ5, EBJQ6, EBJQ9, EBJR3, EBJR4, EBJR5
 EBJR5MS, EBJR5MSD, VBLK3

Acetone, 1,1,1-Trichloroethane
 EBJQ5, EBJQ6, EBJQ7, EBJQ9, EBJR3, EBJR4
 EBJR5, EBJR5DL, EBJR5MS, EBJR5MSD, VBLK3, VBLK4

4-Methyl-2-Pentanone
 EBJQ5, EBJQ6, EBJQ7, EBJQ9, EBJR3, EBJR4
 EBJR5, EBJR5DL, EBJR5MS, EBJR5MSD, VBLK3, VBLK4
 VBLK5, VHBLK1

1,1,2,2-Tetrachloroethane
 EBJQ7, EBJR5DL, VBLK4

The following semivolatile samples are associated with a continuing calibration whose corresponding initial calibration has relative response factors (RRFs) outside primary criteria. Hits are flagged "J" and

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non-detects are qualified "UJ".

2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol
 EBJQ2DL, EBJQ9, EBJR1DL, SBLK3

The following semivolatle samples are associated with a continuing calibration relative response factor (RRF50) outside primary criteria. Hits are flagged "J" and non-detects are qualified "UJ".

2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol
 EBJQ2DL, EBJQ9, EBJR1DL, SBLK3

The following semivolatle samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

2,2'-oxybis(1-Chloropropane), N-Nitroso-di-n-propylamine
 2-Nitroaniline, 4-Nitrophenol
 EBJQ8, EBJQ8MS, EBJQ8MSD, SBLK1

Nitrobenzene

EBJQ1, EBJQ2, EBJQ3, EBJQ4, EBJQ5, EBJQ6
 EBJQ8, EBJQ8MS, EBJQ8MSD, EBJR0, EBJR1, EBJR3
 EBJR4, EBJR5, EBJR5MS, EBJR5MSD, SBLK1, SBLK2

Hexachlorocyclopentadiene

EBJQ8, EBJQ8MS, EBJQ8MSD, EBJQ9RE, SBLK1, SBLK4

2,4-Dinitrophenol

EBJQ1, EBJQ2, EBJQ3, EBJQ4, EBJQ5, EBJQ6
 EBJQ9RE, SBLK2, SBLK4

4-Nitroaniline, N-Nitrosodiphenylamine (1), Pyrene,
 Butylbenzylphthalate, bis(2-Ethylhexyl)phthalate,
 Di-n-octylphthalate

EBJQ9RE, SBLK4

4,6-Dinitro-2-methylphenol

EBJQ1, EBJQ2, EBJQ3, EBJQ4, EBJQ5, EBJQ6
 SBLK2

The RPD between the nominal and the calculated amount of an analyte in the midpoint INDA/INDB exceeded criteria. Hits are qualified "J" and non-detects are qualified "UJ".

EBJQ4, EBJR1

beta-BHC, 4,4'-DDE, Endosulfan II, Endosulfan sulfate
 Endrin ketone, Endrin aldehyde, alpha-Chlordane

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SDG Number: EBJQ1
 Laboratory: SWOK

4. METHOD BLANKS

The following volatile samples have analyte concentrations reported above the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Hits are biased high and qualified "U" and non-detects are not flagged.

Methylene Chloride
 EBJQ5, EBJQ9, EBJR3, EBJR5, EBJR5MS, EBJR5MSD

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to five times (5X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

EBJQ1, EBJQ2, EBJQ3, EBJQ4, EBJQ5, EBJQ6, EBJQ7, EBJQ9, EBJR0,
 EBJR1, EBJR3, EBJR4, EBJR5, EBJR5DL, EBJR5MS, EBJR5MSD
 Chloroform

The following volatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Methylene Chloride
 EBJQ1, EBJQ6, EBJQ7, EBJR4

The following semivolatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

Diethylphthalate
 EBJR0

bis(2-Ethylhexyl)phthalate
 EBJQ1, EBJQ2, EBJQ3, EBJQ4, EBJQ5, EBJQ9RE
 EBJR3, EBJR4, EBJR5, EBJR5MS, EBJR5MSD

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

The following semivolatile samples have surrogate recoveries of less than 10% and a dilution factor which exceeds criteria. Hit for the acid compounds are qualified "J" and non-detects are qualified "R". The "R" flag for the non-detect of the below samples will be the final flag on CADRE Form I report regardless of other flag for these samples elsewhere.

EBJQ9

The following semivolatile samples have one surrogate recovery below the QC limit. Hits and non-detects are not flagged since the protocol allows

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at least two surrogates in either base/newtral or acid fraction to be out of control before the reanalysis or qualification is required.

EBJQ9RE

The following pesticide samples have surrogate percent recoveries which exceed the upper limit of the criteria window. Hits are qualified "J" and non-detects are not flagged.

EBJQ3, EBJQ6, EBJQ7, EBJR0, EBJR1, EBJR3

The following pesticide samples have surrogate percent recoveries which exceed the upper limit of the criteria window. Hits and non-detects are qualified below.

EBJQ8

The following pesticide samples have surrogate percent recoveries which exceed the upper limit of the criteria window. Hits and non-detects are not flagged due to sample dilutions.

EBJQ3DL, EBJQ8DL, EBJR0DL, EBJR1DL, EBJR3DL

The following diluted pesticide samples have surrogate percent recoveries of less than 10%. Hits and non-detects are not flagged due to sample dilutions.

EBJQ6DL, EBJQ7DL, EBJR5DLMS

The following pesticide samples have surrogate percent recoveries outside the lower limit of the criteria window, but greater than 10%. Hits are qualified "J" and non-detects are qualified "UJ".

EBJQ8, EBJR4

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The relative percent difference (RPD) between the following volatile matrix spike and matrix spike duplicate recoveries is outside criteria. Hits and non-detects are qualified below for the unspiked sample.

EBJR5MS, EBJR5MSD
Trichloroethene

The following volatile matrix spike/matrix spike duplicate samples have percent recovery outside criteria. Hits are qualified "J" and non-detects are qualified "UJ" for the unspiked sample.

EBJR5MS
1,1-Dichloroethene

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 Laboratory: SWOK

The following volatile matrix spike/matrix spike duplicate samples have percent recovery outside criteria. Hits are qualified "J" and non-detects are qualified "R" for the unspiked sample. The "R" flag for the non-detect of the below samples will be the final flag on CADRE Form I report regardless of other flag for these samples elsewhere.

EBJR5MSD, EBJR5MS
 Trichloroethene

The relative percent difference (RPD) between the following semivolatile matrix spike and matrix spike duplicate recoveries is outside criteria. Hits and non-detects are qualified below for the unspiked sample.

EBJQ8MS, EBJQ8MSD
 Pentachlorophenol

The following semivolatile matrix spike/matrix spike duplicate samples have percent recovery outside criteria. Hits are qualified "J" and non-detects are qualified "UJ" for the unspiked sample.

EBJQ8MS, EBJQ8MSD
 N-Nitroso-di-n-propylamine

The following semivolatile matrix spike/matrix spike duplicate samples have percent recovery outside criteria. Hits are qualified "J" and non-detects are qualified "R" for the unspiked sample. The "R" flag for the non-detect of the below samples will be the final flag on CADRE Form I report regardless of other flag for these samples elsewhere.

EBJQ8MS, EBJQ8MSD
 Pentachlorophenol

7. FIELD BLANK AND FIELD DUPLICATE

None of the samples in this dataset are QC blanks or field duplicate.

8. INTERNAL STANDARDS

The following volatile samples have internal standard area counts that are outside the lower limit of primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

EBJR5MS
 4-Methyl-2-Pentanone, 2-Hexanone, Tetrachloroethene,
 1,1,2,2-Tetrachloroethane, Toluene, Chlorobenzene, Ethylbenzene,
 Styrene, Xylene (total)

The following semivolatile samples have internal standard area counts that are outside the lower limit of primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

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EBJQ9RE

Nitrobenzene, Isophorone, 2-Nitrophenol, 2,4-Dimethylphenol,
bis(2-Chloroethoxy)methane, 2,4-Dichlorophenol,
1,2,4-Trichlorobenzene, Naphthalene, 4-Chloroaniline,
Hexachlorobutadiene, 4-Chloro-3-methylphenol,
2-Methylnaphthalene

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms, it appears that all VOA, SVOA, and Pesticide/PCB compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The following volatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

EBJQ1, EBJQ6

1,2-Dichloroethene (total)

EBJQ2

Methylene Chloride, Benzene, Toluene, Ethylbenzene, Xylene
(total)

EBJQ3

Methylene Chloride

EBJQ5

1,1-Dichloroethane, 1,1,1-Trichloroethane, Tetrachloroethene

EBJQ9, EBJR3

Acetone

EBJR0

Methylene Chloride, Acetone

EBJR1

Methylene Chloride, Trichloroethene

EBJR4

1,1-Dichloroethane, 1,1,1-Trichloroethane, Trichloroethene

EBJR5, EBJR5MS

Acetone, 1,1,1-Trichloroethane

EBJR5DL

Tetrachloroethene

EBJR5MSD

Acetone, Tetrachloroethene

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VBLK1
Methylene Chloride, Acetone, Chloroform

VBLK2
Chloroform

VBLK3, VBLK4
Methylene Chloride, Chloroform

The following semivolatiles samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

EBJQ1
Phenanthrene, Anthracene, Carbazole, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

EBJQ2
Acenaphthylene

EBJQ2DL
Naphthalene, 2-Methylnaphthalene, Acenaphthene, Dibenzofuran, Fluorene, Carbazole, Dibenz(a,h)anthracene

EBJQ3
Naphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Dibenzofuran, Fluorene, Anthracene, Carbazole, Di-n-butylphthalate, Dibenz(a,h)anthracene

EBJQ4
Acenaphthylene, Phenanthrene, Anthracene, Carbazole, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

EBJQ5
Acenaphthene, Dibenzofuran, Fluorene, Phenanthrene, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

EBJQ6
Naphthalene, Acenaphthylene, Acenaphthene, Dibenzofuran, Fluorene, Anthracene, Carbazole, Dibenz(a,h)anthracene

EBJQ7
Naphthalene, Acenaphthylene, Acenaphthene, Dibenzofuran, Fluorene, Anthracene, Carbazole, bis(2-Ethylhexyl)phthalate, Dibenz(a,h)anthracene

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EBJQ8

2-Methylnaphthalene, Acenaphthene, Dibenzofuran, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene

EBJQ8MS

Phenol, 2-Chlorophenol, 1,4-Dichlorobenzene, N-Nitroso-di-n-propylamine, 1,2,4-Trichlorobenzene, 4-Chloro-3-methylphenol, 2-Methylnaphthalene, Acenaphthene, 4-Nitrophenol, Dibenzofuran, 2,4-Dinitrotoluene, Fluorene, Pentachlorophenol, Phenanthrene, Anthracene, Fluoranthene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene

EBJQ8MSD

Phenol, 2-Chlorophenol, 1,4-Dichlorobenzene, N-Nitroso-di-n-propylamine, 1,2,4-Trichlorobenzene, 4-Chloro-3-methylphenol, 2-Methylnaphthalene, Acenaphthene, 4-Nitrophenol, Dibenzofuran, 2,4-Dinitrotoluene, Fluorene, Pentachlorophenol, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(a)pyrene, Benzo(g,h,i)perylene

EBJQ9

Naphthalene, 2-Methylnaphthalene, Acenaphthene, Dibenzofuran, Fluorene, Anthracene, Carbazole, bis(2-Ethylhexyl)phthalate, Dibenz(a,h)anthracene

EBJQ9RE

Naphthalene, 2-Methylnaphthalene, Acenaphthene, Dibenzofuran, Fluorene, Carbazole, Dibenz(a,h)anthracene

EBJR0

Naphthalene, 2-Methylnaphthalene, Acenaphthene, Dibenzofuran, Fluorene, 4-Nitroaniline, Anthracene, Carbazole, Di-n-butylphthalate, Dibenz(a,h)anthracene

EBJR1

Naphthalene, 2-Methylnaphthalene, Acenaphthene, Dibenzofuran, Fluorene, Di-n-octylphthalate

EBJR1DL

Acenaphthylene, Acenaphthene, Dibenzofuran, Fluorene, Anthracene, Carbazole, bis(2-Ethylhexyl)phthalate, Dibenz(a,h)anthracene

EBJR3

Phenanthrene, Di-n-butylphthalate, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

Prepared By: Steffanie Tobin (Lockheed/ESAT)

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EBJR4

2-Methylnaphthalene, Phenanthrene, Di-n-butylphthalate,
 Fluoranthene, Pyrene, Chrysene, Benzo(g,h,i)perylene

EBJR5

Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Anthracene,
 Carbazole, Di-n-butylphthalate, Dibenz(a,h)anthracene

EBJR5MS

Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Phenanthrene,
 Anthracene, Carbazole, Di-n-butylphthalate, Benzo(a)anthracene,
 Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene,
 Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

EBJR5MSD

Naphthalene, 2-Methylnaphthalene, Dibenzofuran, Phenanthrene,
 Anthracene, Carbazole, Fluoranthene, Benzo(a)anthracene,
 Chrysene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene,
 Dibenz(a,h)anthracene, Benzo(g,h,i)perylene

SBLK2

Diethylphthalate, bis(2-Ethylhexyl)phthalate

SBLK3

Diethylphthalate

SBLK4

Diethylphthalate, Di-n-butylphthalate,
 bis(2-Ethylhexyl)phthalate

The following pesticide samples have analyte concentrations below the
 quantitation limit (CRQL). All results below the CRQL are qualified "J".

EBJQ3DL, EBJQ7DL

4,4'-DDE

EBJQ4DL

Dieldrin, 4,4'-DDE, alpha-Chlordane

EBJQ6DL

4,4'-DDE, Methoxychlor, Endrin ketone, alpha-Chlordane

EBJR3DL

4,4'-DDE, 4,4'-DDT

EBJR5DLMS

gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin
 Endrin, 4,4'-DDT

EBJR5DLMSD

gamma-BHC (Lindane), Aldrin, Dieldrin, Endrin
 4,4'-DDT

Prepared By: Steffanie Tobin (Lockheed/ESAT)
 Date: October 24, 1997

Case Number : 25625
Site Name: Marvel Engineering (IL)

SDG Number: EBJQ1
Laboratory: SWOK

The following pesticide samples have analytes for which the percent difference between column results exceeds primary criteria. Hits are flagged "J" and non-detects are not flagged.

EBJQ2

Endosulfan II, 4,4'-DDD, gamma-Chlordane

EBJQ3

4,4'-DDD, Endrin ketone

EBJQ3DL

4,4'-DDT

EBJQ4

Endosulfan I, 4,4'-DDE, Endrin, Endosulfan II
4,4'-DDD, 4,4'-DDT, Endrin aldehyde, alpha-Chlordane
Aroclor-1254

EBJQ4DL

Dieldrin, 4,4'-DDE, Endrin, 4,4'-DDT

EBJQ5

Heptachlor, Endrin ketone

EBJQ6

gamma-BHC (Lindane), Heptachlor, Heptachlor epoxide, Endosulfan
Dieldrin, Endrin, Endosulfan II, 4,4'-DDD
Endosulfan sulfate, 4,4'-DDT, Methoxychlor, Endrin ketone
Endrin aldehyde, gamma-Chlordane

EBJQ6DL

Endrin, Endosulfan II, 4,4'-DDT, Methoxychlor
Endrin ketone, gamma-Chlordane

EBJQ7

gamma-BHC (Lindane), Heptachlor, Heptachlor epoxide, Endosulfan I
Dieldrin, Endrin, Endosulfan II, 4,4'-DDD
Endosulfan sulfate, Methoxychlor, Endrin ketone, Endrin aldehyde
gamma-Chlordane

EBJQ7DL

Endrin, 4,4'-DDT

EBJQ8

Endosulfan II, 4,4'-DDT, gamma-Chlordane

EBJQ9

Heptachlor, Aldrin, Endrin, 4,4'-DDD
alpha-Chlordane

EBJR0

4,4'-DDD, 4,4'-DDT

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Date: October 24, 1997

Case Number : 25625
 Site Name: Marvel Engineering (IL)

SDG Number: EBJQ1
 Laboratory: SWOK

EBJR1

delta-BHC, Heptachlor, Heptachlor epoxide, Endosulfan I
 Dieldrin, 4,4'-DDE, Endrin, Endosulfan II
 4,4'-DDD, 4,4'-DDT, Methoxychlor, Endrin ketone
 Endrin aldehyde, alpha-Chlordane, gamma-Chlordane, Aroclor-1254

EBJR1DL

4,4'-DDE, Endrin, 4,4'-DDT, Methoxychlor
 Endrin aldehyde, alpha-Chlordane, gamma-Chlordane, Aroclor-1254

EBJR3

4,4'-DDE, 4,4'-DDT, gamma-Chlordane

EBJR4

Endrin

EBJR5

4,4'-DDD, Endrin ketone

EBJR5MS

Aldrin, Dieldrin, 4,4'-DDD, 4,4'-DDT

EBJR5MSD

Aldrin, Dieldrin

SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION

The SVOA samples EBJQ2 and EBJR1 have at least one target compounds which were quantitated outside the calibration range. The Pest/PCB samples EBJQ3, EBJQ4, EBJQ6, EBJQ7 and EBJR1 have at least one target compounds which were quantitated outside the calibration range. For the analyte that exceeded the calibration range in the original sample analysis; the results of the diluted analysis should be considered the sample's analyte concentration.

The result of flouranthene of sample EBJQ9RE was quantitated outside the calibration range. The result of flouranthene for the original analysis should be considered the sample's analyte concentration.

Below is the summary of the pH for the samples of this dataset:

<u>Sample ID</u>	<u>pH</u>
EBJQ1	8.4
EBJQ2	7.0
EBJQ3	7.6
EBJQ4	8.0

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 Date: October 24, 1997

Case Number : 25625
Site Name: Marvel Engineering (IL)

SDG Number: EBJQ1
Laboratory: SWOK

<u>Sample ID</u>	<u>pH</u>
EBJQ5	7.4
EBJQ6	7.2
EBJQ7	7.6
EBJQ8	7.4
EBJQ9	8.7
EBJR0	7.1
EBJR1	8.3
EBJR3	7.5
EBJR4	7.7
EBJR5	7.9

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: October 24, 1997

CADRE Data Qualifier Sheet

Qualifiers

Data Qualifier Definitions

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification.
- NJ The analysis indicates the presence of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
- R The data are unusable. (The compound may or may not be present)
- H Sample result is estimated and biased high.
- L Sample result is estimated and biased low.